JAN 23 2012

Peggy Shue  
Aera Energy LLC  
P.O. Box 11164  
Bakersfield, CA 93380-1164

Re: Notice of Final Action - Title V Permit Renewal  
District Facility # S-1547  
Project # S-1064899

Dear Ms. Shue:

The District has issued the Final Renewed Title V Permit for Aera Energy LLC. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on 11/7/2011. A summary of the comments and the District's response to each comment (included as an attachment) and public notice to be published approximately three days from the date of this letter are attached.

Thank you for your cooperation in this matter. Should you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

[Signature]
David Warner  
Director of Permit Services

Attachments

cc: Dolores Gough, Permit Services Engineer

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

Northern Region  
4800 Enterprise Way  
Modesto, CA 95355-8714  
Tel: (209) 557-8400  FAX: (209) 557-8475

Central Region/Main Office  
1900 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6200  FAX: (559) 230-6061

Southern Region  
34946 Flyover Court  
Bakersfield, CA 93308-8725  
Tel: 661-392-5500  FAX: 661-392-5585

www.valleyair.org  www.healthyairliving.com
JAN 23 2012

Gerardo C. Rios, Chief
Permits Office (AIR-3)
U.S. EPA - Region IX
75 Hawthorne St.
San Francisco, CA 94105

Re: Notice of Final Action - Title V Permit Renewal
District Facility # S-1547
Project # S-1064899

Dear Mr. Rios:

The District has issued the Final Renewed Title V Permit for Aera Energy LLC. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on 11/7/2011. A summary of the comments and the District’s response to each comment (included as an attachment) and public notice to be published approximately three days from the date of this letter are attached.

I would like to thank you and your staff for working with us. We appreciate your concurrence with this action. Should you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

Attachments

cc: Dolores Gough, Permit Services Engineer
JAN 23 2012

Mike Tollstrup, Chief
Project Assessment Branch
Air Resources Board
P O Box 2815
Sacramento, CA 95812-2815

Re: Notice of Final Action - Title V Permit Renewal
District Facility # S-1547
Project # S-1054899

Dear Mr. Tollstrup:

The District has issued the Final Renewed Title V Permit for Aera Energy LLC. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on 11/7/2011. A summary of the comments and the District's response to each comment (included as an attachment) and public notice to be published approximately three days from the date of this letter are attached.

I would like to thank you and your staff for working with us. Should you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

Attachments

cc: Dolores Gough, Permit Services Engineer
SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT
NOTICE OF FINAL DECISION TO ISSUE
RENEWED FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue the renewed Federally Mandated Operating Permit to Aera Energy LLC for its Heavy Oil operations at Aera's Heavy Oil Western stationary source, California.

The District’s analysis of the legal and factual basis for this proposed action, project #S-1064899, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.
Comments and Responses - TV Renewal Project S-1064899
Aera Energy, LLC – Facility S-1547

A. EPA Comment

Comment: The District’s evaluation of CAM (Part 64 applicability) begins on page 48 of the District’s evaluation. EPA notes that there are multiple emission units (including TEOR wells, several storage vessels, and process heaters as listed in greater detail below) operating with a either a “vapor collection system” or “vapor control system” that captures VOC emissions. The CAM evaluations for such units state that “…[the unit] has a vapor collection system, which is not considered an add-on control. Therefore, it is not subject to CAM.” §64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere. The CAM evaluation for these units does not specify what the fate of the collected/controlled vapors is, but it is reasonable to expect these collected vapors to ultimately be destroyed by some type of device. In such a situation, the final destruction device and the capture/collection system would collectively be considered a control device. In order for the CAM evaluation to be sufficient, further explanation is required regarding why the vapor collection system or vapor control system for these units would not be considered a control device.

If in updating its analysis the District indicates that these vapor collection systems and vapor control systems are inherent process equipment not subject to CAM, please note that we have commented on the issue of what is considered “inherent process equipment” in the comments on other Title V permits issued by the district. For examples, please consult the EPA comments for Project # S-1072845 (Plains Exploration and Production Company, Facility ID S-1372) or Project # S-1094887 (Exxon Mobil Corporation, Facility ID S-1328), among others. Please ensure that a District determination regarding “inherent process equipment” reflects those comments.

This comment applies to the units listed in the following sections.

- Page 50 – TEOR Wells (a), (f), (g), and (h)
- Page 52 – Tanks (b), (e), (f), (g), (h), (i), and (j)
- Page 60 – Process Heaters (c), (d), (e), and (f)

District Response Regarding CAM for Oil Production Vapor Control System:
In our preliminary decision to renew the TV permit for this facility, we concluded vapor control systems serving crude oil tanks and production wells were inherent process equipment and as such the underlying emissions units were not equipped with a “control device” and therefore not subject to CAM requirements. We believe that this analysis is accurate and offer the following additional justification below.
For oilfield tanks and wells, CAM is required if an emission unit is subject to emission limit or standard to the pollutant of concern, uses a control device to comply with the emission limit or standard, and has a potential pre-control emissions greater than 10 ton/year.

While most tanks and wells equipped with a vapor control system include an emission limit or standard and have uncontrolled potential to emit greater than 10 ton/year, we have concluded that the vapor control systems that they are equipped with do not meet the criteria of control device as defined in 40 CFR part 64.

The definition of control device from 40 CFR Part 64 is as follows (emphasis added):

*Control device* means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

It is important to note that this definition includes an exemption for “inherent process equipment. Inherent process equipment is by definition not a control device. Emission units equipped with inherent process equipment are not subject to the requirements of CAM.

40 CFR Part 64 defines inherent process equipment as (emphasis added):
Inherent process equipment means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device.

Please note that the above definition requires that inherent process equipment must be used "... for the proper or safe operation of the process ...". It is important to note that the equipment need not be used solely for the proper or safe operation of the process. Such systems could be used for compliance with regulations as well.

We have concluded that vapor control systems installed on oilfield tanks and oil production wells are inherent process equipment (and by definition not a control device) for the reasons stated below.

- Tank and well vapor control systems reduce emission of H2S (a toxic substance) from the tanks/wells and as such assure worker safety for OSHA and other regulatory requirements.

- Tank vapor control systems minimize air intrusion into the vapor space and as such reduce corrosion of the tank interior. Such systems are commonly installed even though they are not required to comply with District regulations. District Rule 4623 – Storage of Organic Liquids does not require vapor control on storage tanks storing liquids with a true vapor pressure of less than 0.5 psia. Due to the relatively low actual emissions from such tanks, vapor control is typically not a Rule 2201 best available control technology (BACT) requirement for most heavy crude oil storage tanks. Even though not required by District rules, facilities commonly install vapor control on storage tanks for safety and corrosion prevention purposes.

- As stated above, facilities commonly install vapor control on tanks even though there is not an requirement to do so. Vapor control has historically been installed on crude oil production well vents as well prior to the requirement to install such controls. In fact, the District has issued emission reduction credits for the installation of well vent vapor control systems.

- Vapors collected by tank and well vapor control systems are commonly burned in multiple existing units, e.g. steam generators, in which useful energy is recovered. Steam generators, are used in oil production to enhance oil recovery
from production wells. The steam generators, wells and tanks (with their associated vapor control systems) are part of the overall process to thermally enhance oil production.

Such systems typically distribute the vapors to multiple steam generators (or other devices) for use as a fuel. The quantity of vapors from such vapor control systems combusted in a particular steam generator varies as the operational needs of the facility change. For example, vapors that are typically combusted in a given steam generator would be burned in a different approved steam generator instead if the first steam generator is taken out of service.

For all of the reasons stated above, we believe that tank and well vapor control systems are truly inherent to the oil production process. As such we believe that these systems meet the criteria for "inherent process systems," and as such are not a control device for the purposes of CAM applicability. Therefore, we do not believe that the emission units that are served by such systems are subject to the requirements of CAM.

Notwithstanding the above, we agree to work cooperatively with EPA Region IX to address CAM applicability issues on a programmatic basis in the future.

B. Aera's Comments and District Responses:

Aera reviewed and commented on the proposed Title V permits to be reviewed. A list of Aera's comments and the District's responses are summarized in the attached table.

C. Other Corrections/Revisions to the Final TV PTOs:


Updated and added Rule 4401 conditions to these TEOR well operation permits. The Rule 4401 conditions were erroneously moved to the draft facility-wide TV permit. These conditions were moved back to the individual permits and removed from the facility-wide permit.
<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Aera's Comments</th>
<th>District's Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1547-1-32</td>
<td>Does not reflect dormant status</td>
<td>Will be dormant when ATC S-1547-1-38 will be converted.</td>
</tr>
<tr>
<td>S-1547-59-21</td>
<td>Remove redundant sulfur testing condition</td>
<td>Removed</td>
</tr>
<tr>
<td>S-1547-68-22, -117-15</td>
<td>Concern with section number, were authorized in ATC -68-14 &amp; -117-7</td>
<td>Not corrected yet; ATCs were cancelled</td>
</tr>
<tr>
<td>S-1547-7-28, -16-23 &amp; -126-18</td>
<td>Location (township) typo error</td>
<td>Corrected</td>
</tr>
<tr>
<td>S-1547-74-26</td>
<td>Equipment description discrepancy</td>
<td>Corrected</td>
</tr>
<tr>
<td>S-1547-78-22, 123-20, 146-20</td>
<td>Renewed PTOs should reflect sweet gas firing and no SOx scrubber req’d</td>
<td>Final PTOs were updated to remove SOx scrubber conditions and reflect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>implementation of latest ATCs that have change orders for Rule 4320 limits</td>
</tr>
<tr>
<td>S-1547-92-22</td>
<td>Change to Gideon burner in equipment description</td>
<td>No - will be replaced when ATC -92-29 will be converted; added SOx limit in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ts/MMblu for consistency</td>
</tr>
<tr>
<td>S-1547-134-16</td>
<td>Type on location section</td>
<td>Corrected section number</td>
</tr>
<tr>
<td>S-1547-143-27, -144-27</td>
<td>Type on listed permit number</td>
<td>Corrected listed permit to S-1547-144 and -143, respectively</td>
</tr>
<tr>
<td>S-1547-157-16, -250-21</td>
<td>List correct location (pending modification)</td>
<td>There are ATCs -157-23 &amp; -250-27 to correct location, when converted to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PTO</td>
</tr>
<tr>
<td>S-1547-176-22</td>
<td>Delete unit</td>
<td>Deleted; transfer of ownership 11/23/2011</td>
</tr>
<tr>
<td>S-1547-734-11</td>
<td>Missing condition on sulfur limit</td>
<td>Added condition on new sulfur limit for Rule 4320</td>
</tr>
<tr>
<td>S-1547-737-9, -760-10, -786-10</td>
<td>Remove “John Zink –” in equipment description</td>
<td>Updated equipment description to reflect currently permitted equipment</td>
</tr>
<tr>
<td>S-1547-761-15</td>
<td>Missing dormant conditions</td>
<td>Newly converted PTO -18 and ATC '23 (with change orders) have no dormant conditions; ATC '21 is compliant dormant; updated testing conditions</td>
</tr>
<tr>
<td>S-1547-763-9</td>
<td>Correct typo</td>
<td>“Formerly Mobil permit -120” (corrected from -1120)</td>
</tr>
<tr>
<td>S-1547-777-11</td>
<td>Check base document and newly added conditions</td>
<td>Corrected conditions to reflect the current PTO conditions</td>
</tr>
<tr>
<td>** S-1547-767-14, -788-14, -789-14, -790-14, -791-14, -792-14, -793-15, -794-14, -795-16, -796-14, -825-14 and -830-14 and -1211-0</td>
<td>The minor modification application to add the Rule 4320 sulfur limits has been submitted but the limits were not reflected in the proposed Title V renewed permits.</td>
<td></td>
</tr>
<tr>
<td>S-1547-798-10, 799-7, 800-10, 801-10, 804-11, 805-12, 806-10, 807-13, 826-8, 827-10, 828-10, 829-12</td>
<td>Equipment description is from outdated permit modification</td>
<td>S-1547-1211-0 has not been converted into a PTO. The renewed TV general conditions for the steam generators will be incorporated into the TV PTOs when the minor modification project is finalized; no change orders created yet (they will not be in this renewal).</td>
</tr>
<tr>
<td>S-1547-1080-6</td>
<td>Incorrect section number; Aera requested change in 2001</td>
<td>Corrected section number</td>
</tr>
<tr>
<td>S-1547-1142-7, -1143-6, -1144-6, -1145-3, -1146-3, -1147-3, -1148-3, -1149-3, -1150-3</td>
<td>Missing steam generator ID in equipment description</td>
<td>Added the equipment ID.; updated wording on test method condition</td>
</tr>
<tr>
<td>S-1547-1145-3</td>
<td>Update NOx limit from 9 to 7 ppm</td>
<td>No – no change order yet for ATC S-1547-1145-1 to lower NOx</td>
</tr>
<tr>
<td>S-1547-1151</td>
<td>No draft PTO</td>
<td>No PTO S-1547-1151-0 (not yet converted)</td>
</tr>
<tr>
<td>Several units</td>
<td>Update wording on conditions regarding test methods for consistency; remove other obsolete or conditions no longer applicable</td>
<td>Updated wording for consistency; deleted (or updated) conditions no longer applicable, such as group testing requirements; test methods</td>
</tr>
<tr>
<td>Several dormant units</td>
<td>Concerns with DEU conditions wording</td>
<td>Dormant conditions were updated using District Policy – GEAR 28 DEU updated DEU conditions (compliant or non-compliant DEU)</td>
</tr>
</tbody>
</table>

**Tanks, TEORS, Engines, etc**

<p>| S-1547-148-21, -149-20, -151-20 (turbine engine cogen) | Update conditions for Rule 4703 | Replaced term “reduced load” with “transition stack” to reflect updated Rule 4703, added definition of stack transition, and removed redundant conditions |
| S-1547-384-3 (tank) | Update condition 16 | Updated to reflect current Rule 4623 requirement |
| S-1547-461-6, -462-7, -463-6, -465-6 (tanks) | Remove duplicate condition already in '460 with vapor control, these tanks are connected to the '460 permit. | Removed |
| S-643-16 (tank) | Equipment description typo | Corrected |
| S-1547-703-3 (gasoline engine) | Correct equipment description | Corrected some equipment wording: (BELRIDGE MAIN OFFICE HEAVY OIL STATIONARY SOURCE); Condition 3 on representative testing was removed as it is no longer applicable |
| S-1547-844-6, -846-6, -848-6, -849-6, -850-6, -851-6, -852-6, -854-6 (tanks) | Remove duplicate condition already in '843 with vapor control, these tanks are connected to the '843 permit. | Removed |
| S-1547-845-6, -846-6, -848-6, -849-6, -850-6, -851-6, -852-6, -853-6, -882-6, -1025-6 (tanks) | Remove reference to ‘883 in equipment description; ‘883 was surrendered and cancelled on 3/17/2009 | Removed ‘883 in equipment description. |
| S-1547-907-3 (sand basin) | Update condition 1 | Updated to reflect implemented condition. |
| S-1547-944-10, -998-13, -999-12 (heater treater) | Remove duplicate condition already in '865 with vapor control, these tanks are connected to the '865 permit. | Removed |
| S-1547-1005-12, -1006-12, -1007-12, -1008-11, -1009-11, -1010-11, -1011-12 (heater treater) | Remove duplicate condition already in '843 with vapor control, these tanks are connected to the '843 permit. | Removed |
| S-1547-1033-3 (diesel engine) | Update equipment description | Added: (COMPUTER BACKUP – “GREEN ROOM”); Conditions on monitoring, operation and maintenance were updated. |
| S-1547-1060-6 (combined cycle gas turbine) | Update equipment description and condition on test methods | Updated: 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION WITH SELECTIVE CATALYTIC REDUCTION (SCR) – LOST HILLS UNIT #4 |
| S-1547-1061-6, -1062-6 | Update condition on annual performance testing and test methods | Updated |</p>
<table>
<thead>
<tr>
<th>(combined cycle gas turbine)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1547-1102-7 (tank)</td>
<td>Corrected a typo on the VOC limit</td>
<td>Corrected</td>
</tr>
<tr>
<td>S-1547-1105-2 (diesel engine)</td>
<td>Update monitoring, operation and maintenance conditions</td>
<td>Updated</td>
</tr>
<tr>
<td>S-1547-1114-1 (tank)</td>
<td>Delete conditions that are no longer applicable</td>
<td>Deleted conditions 1 and 2</td>
</tr>
<tr>
<td><strong>S-1547-1211-0 (sulfur treatment vessel) and several SGs - see above</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1547-1214-3 (tank)</td>
<td>Update conditions</td>
<td>Incorporated ATC'-1214-1 conditions ('-1214-2 finalized)</td>
</tr>
</tbody>
</table>
Permit to Operate

FACILITY: S-1547
EXPIRATION DATE: 05/31/2016

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: PO BOX 11164
BAKERSFIELD, CA 93389-1164

FACILITY LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

FACILITY DESCRIPTION: CRUDE PETROLEUM AND NATURAL GAS

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin
Executive Director / APCO

David Warner
Director of Permit Services
Facility-Wide Requirements

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

2. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101, by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101] Federally Enforceable Through Title V Permit

3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1 and Kern County Rule 111] Federally Enforceable Through Title V Permit

5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0 and Kern County Rule 111] Federally Enforceable Through Title V Permit

6. All required source testing shall conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit

7. Compliance demonstration (source testing) shall be by District witnessed, or authorized. Sample collection shall be by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

8. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit

9. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020. [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit

10. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit

Facility-Wide Requirements Continue on Next Page

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.
i1. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit

12. Every application for a permit required under Rule 2010 (Permits Required) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

13. The operator shall maintain records of required monitoring, where applicable, that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

14. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

16. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

17. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit

18. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit

19. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit

20. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit

21. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit

22. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit

23. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee’s premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit

24. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
1547-0-3, Jan 18 2012 1:38PM - 60XH6D
25. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit

26. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

27. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

28. All VOC-containing materials for architectural coatings subject to Rule 4601 shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

29. The permittee shall comply with all the Labeling and Test Method requirements outlined in Rule 4601. [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

30. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13 and 10.0] Federally Enforceable Through Title V Permit

31. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

32. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit

33. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021(8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit

34. Outdoor handling and storage of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under section 4 of Rule 8031 (8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit

35. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit

36. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit

37. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

38. Any unpaved vehicle/equipment traffic area that anticipates more than 50 or more Average Annual Daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment traffic area that anticipates 150 vehicle daily trips (VDT), or 150 VDT that are utilized intermittently for a period of 30 days or less during the calendar year shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 3.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
39. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

40. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit

41. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit

42. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permit shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Kern County Rules 111 and 401. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 410i (2/17/05); 4201 (12/17/92); 4301 (12/17/92); 4406 (12/17/92); 4601, section 5.0, 6.0 and 7.0 (12/17/09); 4801 (12/17/92); 8021 (08/19/04); 8031 (08/19/04); 8041 (08/19/04); 8051 (08/19/04); 8061 (08/19/04); 8071 (08/19/04). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Facility shall comply with all applicable requirements regarding preparation and implementation of a risk management plan by June 21, 1999 and shall abide by all applicable sections of 40 CFR Part 68. [40 CFR 68] Federally Enforceable Through Title V Permit

46. Facilities S-1135 and S-1547 constitute one stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit

47. The permittee shall submit a Stationary Source Curtailment Plan and/or a Traffic Abatement Plan, pursuant to District Rule 6130 (as amended December 17, 1992) within 45 days to the APCO upon request. [District Rule 6130, 3.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

10. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: PM10: 111.0 lb/day, SOx (as SO2): 7.5 lb/day, VOC: 10.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per each occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit
19. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of these three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-3-28  EXPIRATION DATE: 05/31/2016
SECTION: 26  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN ULN BURNER,
A FLUE GAS RECIRCULATION (FGR) SYSTEM, AND A SO2 SCRUBBER SHARED WITH S-1547-1, (#26 DIS# 19952-
75) (ANDERSON/FITZGERALD DEHY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable
Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2201]
Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

10. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

11. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per each occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

NOTICE: PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 10 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hiv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-7-28  EXPIRATION DATE: 05/31/2016
SECTION: NW12  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN 3.2 LOW NOX BURNER, O2 CONTROLLER, AND FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#12-2L, DIS# 19960-74)

PERMIT UNIT REQUIREMENTS

1. This steam generator is approved to operate at the following locations: NW/4 Section 12, T29S, R21E and Section 34, T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor H2S content of the gas prior to incineration in affected steam generators on a daily basis. If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-H-28 | Jan 19 2012 12:00 PM | P2O6PHD
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 19.3 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.058 lb/MBMtu, SOx (as SO2): 0.055 lb/MBMtu, VOC: 0.003 lb/MBMtu, NOx (as NO2): 0.018 lb/MBMtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MBMtu or 40 ppmv @ 3% O2. [District Rules 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scfm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 82.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-10-24
EXPIRATION DATE: 05/31/2016

SECTION: 34  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH FLUE GAS RECIRCULATION (#33, DIS# 19964-74)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2201] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit

9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Natural gas fuel sulfur content shall not exceed 19.3 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

12. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

13. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

14. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

15. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

17. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

19. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

28. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

29. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Steam generator shall be equipped with O2 controller and excess O2 shall be maintained between 0.5 and 3.0%. [District Rule 4305] Federally Enforceable Through Title V Permit

5. Staged combustion shall be removed or rendered inoperable. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Only PUC-quality natural gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rule 2201 and Rule 4305]

8. The steam generator shall be equipped with an FGR valve positioning indicator. [District Rule 4305] Federally Enforceable Through Title V Permit

9. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 4305] Federally Enforceable Through Title V Permit

10. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 4305] Federally Enforceable Through Title V Permit

11. The acceptable range of flue gas recirculation (FGR) valve settings shall be established by testing emissions from this or other representative unit(s) as approved by the District. The acceptable maximum and minimum FGR valve settings shall be the settings with which compliance with applicable NOx and CO emission rates have been demonstrated through District approved source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

12. The acceptable range of FGR valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit
13. If the flue gas recirculation valve setting deviates from the acceptable range, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the flue gas recirculation valve settings are not corrected promptly, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits at the observed flue gas recirculation valve setting. [District Rule 4305] Federally Enforceable Through Title V Permit

14. Permittee shall record the FGR valve position and date and time when the FGR valve position was checked on a weekly basis. Permittee shall record any corrective action taken to maintain the FGR setting within the acceptable range. Permittee shall maintain records of date and duration of each startup and each shut down. Records shall be retained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

15. Compliance source testing shall be conducted under conditions representative of normal operation except during establishment of acceptable minimum and maximum FGR valve settings. [District Rule 1081] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

17. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit
21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

27. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-13-20
EXPIRATION DATE: 05/31/2016

SECTION: 28   TOWNSHIP: 28S   RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW NOX BURNER
AND A FLUE GAS RECIRCULATION SYSTEM, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
(MAXWELL #36 (NORTH MIDWAY), DIS #20604-76)

PERMIT UNIT REQUIREMENTS

1. This generator is permitted to operate at the following locations: NE 1/4 Section 27 of Township 31S, Range 22E and
Section 28 of Township 28S, Range 21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201]
Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable
Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V
Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MBMt, SOx (as SO2): 0.003 lb/MBMt, VOC: 0.003 lb/MBMt, NOx (as NO2): 0.018 lb/MBMt or 15 ppmv @ 3% O2, or CO: 0.030 lb/MBMt or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBTu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBTu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 5.4; 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of these runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-16-23
EXPIRATION DATE: 05/31/2016
SECTION: NW12  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN GLE ULTRA LOW-NOX BURNER AND FLUE GAS RECIRCULATION (#12-2M, DIS# 20625-76)

PERMIT UNIT REQUIREMENTS

1. This steam generator is approved to operate at the following locations: NW/4 Section 12, T29S, R21E and Section 34, T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARP Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

7. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor H2S content of the gas prior to incineration in affected steam generators on a daily basis. If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 19.3 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 82.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.5 & 6.1] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.6 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hV - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-17-32
SECTION: NW35  TOWNSHIP: 12N  RANGE: 24W
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH A COEN QLN-ULN LOW-NOX BURNER, O2 CONTROLLER, AND FLUE GAS RECIRCULATION (MOCO #707, SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
  H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Natural gas combusted in this unit shall consist primarily of methane and contain less than 5% by weight hydrocarbons heavier than butane. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Natural gas fuel sulfur content shall not exceed 19.3 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.004 lb/MBMBtu, SOx (as SO2): 0.055 lb/MBMBtu, VOC: 0.003 lb/MBMBtu, NOx (as NO2): 0.018 lb/MBMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MBMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MBMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MBMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 6.0 lb/day, SOx (as SO2): 82.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

8. This unit may not be operated after the applicable compliance schedule from Rule 4320, unless a valid ATC is implemented that approves the changes allowing this unit to comply with the applicable requirements of Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

9. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.444c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 2.8 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.008 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 12.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
21. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 6.1; 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

30. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010]

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2 [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

5. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit
9. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

10. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

15. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit
18. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-24-20  
EXPIRATION DATE: 05/31/2016

SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH A COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#47, DIS# 21944-77)

PERMIT UNIT REQUIREMENTS

1. Approved locations for this steam generator are: NE1/2 T30S R21E (Calso Lease) and Sec. 33 T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10:
0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Natural gas fuel sulfur content shall not exceed 19.3 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to saged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 1uB or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emission rates from this unit shall not exceed any of the following limits: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu (as SO2), NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

5. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

8. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hnv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2251 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulf: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Natural gas fuel sulfur content shall not exceed 19.3 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: PM10: 0.058 lb/MBtu, SOx (as SO2): 0.055 lb/MBtu, NOx (as NO2): 0.018 lb/MBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

13. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

14. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

15. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

17. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-47-21

EXPIRATION DATE: 05/31/2016

SECTION: 33
TOWNSHIP: 28S
RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR #52
DIS# 21832-78 WITH O2 CONTROLLER AND ANDERSON 2000 SOX SCRUBBER

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.035 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2; or CO: 25.8 ppmv @3% O2. [District Rule 220i and District Rule 4305, 5.1] Federally Enforceable Through Title V Permit

5. SOx scrubber shall be utilized whenever vapor recovery gas is burned in this unit. [District Rule 220l] Federally Enforceable Through Title V Permit

6. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 220l] Federally Enforceable Through Title V Permit

7. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 220l] Federally Enforceable Through Title V Permit

8. Scrubber liquor pH shall be maintained between 6.15 and 7.5 and shall be continuously monitored. [District Rule 220l] Federally Enforceable Through Title V Permit

9. Scrubber SO2 control efficiency shall be maintained at no less than 95%. [District Rule 220l] Federally Enforceable Through Title V Permit

10. No less than 0.5 miles of roadway shall be paved and maintained in good repair. [District Rule 220l] Federally Enforceable Through Title V Permit

11. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

12. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 220l] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

23. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-57-18
EXPIRATION DATE: 05/31/2016

SECTION: 20  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (#70 DIS# 27452-81) WITH C.E. NATCO SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. SOx scrubber shall be utilized whenever vapor recovery gas is burned in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201]

6. Scrubber liquor pH shall be maintained between 6.15 and 7.5 and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Emissions from this unit shall not exceed any of the following: PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2. [District Rules 2201and 4305, 5.1] Federally Enforceable Through Title V Permit

8. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permitee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permitee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permitee may stipulate a violation has occurred, subject to enforcement action. The permitee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permitee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. The permitee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

13. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permitee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. SOx scrubber shall be utilized whenever vapor recovery gas is burned in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201]

6. Scrubber liquor pH shall be maintained between 6.15 and 7.5 and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Emissions from this unit shall not exceed any of the following: PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2. [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

8. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

13. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

4. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor H2S content of the gas prior to incineration in affected steam generators on a daily basis. If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

11. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

12. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

16. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.958 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1; 4320, 5.2 and 5.4] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 94.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 7,665 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

31. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-60-20
EXPIRATION DATE: 05/31/2016

SECTION: 20 TOWNSHIP: 28S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN 3.2
LOW NOX BURNER, FLUE GAS RECIRCULATION, AND SO2 SCRUBBER (#73 DIS# 28624-82)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one
of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in
the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2201]
Federally Enforceable Through Title V Permit

7. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201]
Federally Enforceable Through Title V Permit

8. Steam generator firebox convection section, scrubber bypass valve, end all flue gas ductwork shall be maintained with
no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Whenever the unit is switched to scrubbed operation, compliance source testing for SOX shall be conducted within 60
days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12
months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

11. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber liquid pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

15. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.058 lb/MMBtu, SOx (as NO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 4305, 5.1; 4306, 5.1 and 4320, 5.2 and 5.4] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 94.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 7,665 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-61-24
SECTION: 20  TOWNSHIP: 28S  RANGE: 21E
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR, WITH FLUE GAS RECIRCULATION AND SO2 SCRUBBER (#74 DIS# 26625-82)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

14. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following: PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

18. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

19. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

20. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

21. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305, 6.1] Federally Enforceable Through Title V Permit

23. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

25. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

31. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 4305, 6.3] Federally Enforceable Through Title V Permit
32. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

35. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

37. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, and 4305, 6.2] Federally Enforceable Through Title V Permit

38. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

39. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Section 18, T28S/R21E and NW/4 Section 12, T29S/R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 19.3 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.050 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.030 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 82.5 lb/day. VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4648, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments shall be due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Section 18, T28S/R21E and NW/4 Section 12, T29S/R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM J072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 19.3 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 82.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

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23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305,6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305,6.1; 4306, 6.1and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

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6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

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10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.055 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 82.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to.operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 108, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 1B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2. [District Rule 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

5. No less than 0.8 miles of roadway shall be paved and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

6. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

15. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

18. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-68-22                       EXPIRATION DATE: 05/31/2016
SECTION: 34  TOWNSHIP: 28S  RANGE: 21E
EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR #83 DIS# 27485-81 WITH O2 CONTROLLER

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an
   Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title
   V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title
   V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.008 lb/MMMBtu, SOx (as SO2): 0.003
   lb/MMMBtu, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMMBtu, or CO: 25.8 ppmv @3% O2. [District Rules
   2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

5. No less than 0.8 miles of roadway shall be paved and maintained in good repair. [District Rule 2201] Federally
   Enforceable Through Title V Permit

6. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated
   produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally
   Enforceable Through Title V Permit

7. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit
   shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value
   analysis of each fuel source. [District NSR Rule] Federally Enforceable Through Title V Permit

8. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in
   which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring
   shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring.
   Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the
   last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable
   emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but
   no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable
   emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the
   following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a
   source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must
   then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the
   deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply
   with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305,
   5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

15. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 105, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas lHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

18. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. This requirement shall not supersede a more stringent NSR or PSD permit testing requirement. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

11. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in the group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2 and 4305.6.3.2] Federally Enforceable Through Title V Permit

12. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

13. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. [District Rules 2520, 9.4.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

14. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

16. Approved locations for this steam generator are: Sec. 28 T28S R21E and SE26 T29S R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rule 2201 and Rule 4305] Federally Enforceable Through Title V Permit

20. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

21. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

23. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records shall also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

25. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

26. Source testing to measure NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rule 4305] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 4305] Federally Enforceable Through Title V Permit

28. If permittee fails any compliance demonstration for NOx or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 4305] Federally Enforceable Through Title V Permit

29. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The following test methods shall be used: NOx (pmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (pmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

32. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM I072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Not less than 0.5 miles of roadway shall be paved and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1, 4306, 5.1 and 4320, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory. fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOX emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-76-26  
EXPIRATION DATE: 05/31/2016

SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:  
62.5 MMSCF/HOUR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH FLUE GAS  
RECIRCULATION AND SO2 SCRUBBER, AUTHORIZED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS, (#87,  
DIS# 27469-80)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an  
Authority to Construct. [District Rule 2010]

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title  
V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title  
V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas  
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all  
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule  
2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,  
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur  
content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel  
testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly  
testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once  
every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-  
combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated  
emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested  
not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show  
compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel  
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;  
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total  
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V  
Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each  
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with  
ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable  
Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 12.3] Federally Enforceable Through Title V Permit

10. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rule 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

11. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

12. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

13. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

14. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

16. Approved locations for this steam generator are SE33 T28S R21E (gen. site 3346 or 3556), NW01 T28S R20E (gen. site 121), NW34 T28S R21E and NE34 T28S R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Scrubber shall be utilized whenever vapor recovery gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

21. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Scrubber liquor pH shall be maintained between 6.15 and 7.5 and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Emission rates shall not exceed any of the following: PM10: 0.0138 lb/MMBtu, SOx (as SO2): 0.015 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 47.5 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

27. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

28. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

29. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

31. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

32. Duration of startup and shutdown (as defined in Rule 4305) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5.6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

33. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

34. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
35. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

36. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-78-23
PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

EXPIRATION DATE: 05/31/2016
SECTION: NE29 TOWNSHIP: 28S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED-STEAM GENERATOR WITH A COEN ULTRA LOW NOX BURNER, WITH FLUE GAS RECIRCULATION, AND PIPING FROM S-1547-107'9 (EAST FLANK LEASE), (#89, DIS# 27471-80) (GEN SITE 2972)

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c (g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and 4801, 3.1] Federally Enforceable Through Title V Permit

6. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit

7. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2 [District Rules 2201, 4305,5.1; 4306, 5.1 and 4320, 5.2 & 5.4] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates shall not exceed any of the following: NOx (as NO2): 54.0 lb/day or 7,665 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

13. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

19. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. [District Rules 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. if two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305,6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-79-15  EXPIRATION DATE: 05/31/2016

SECTION: SE28  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR (#90, DIS# 27450-80) WITH O2 CONTROLLER (GEN SITE 2868).

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from this unit shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

8. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 36 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. No less than 3.0 miles of roadway shall be paved and properly maintained with hot mix asphalt material at South Belridge field on Poleline Road from the intersection of Main Camp Road to 1/2 mile north of Entrance 'D'. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shut-down, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two or three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-87-24  EXPIRATION DATE: 05/31/2016
SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS-FIRED STEAM GENERATOR, WITH FLUE GAS RECURCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#98, DIS #27459-80)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Approved locations for this steam generator are: NE, NW, SE, SW 1/4 Section 34, T28S, R21E; SE 1/4 Section 26, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 4301, 5.2.1, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 2520, 9.3.2, 4305 and d4306] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44e(c) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

14. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

15. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

16. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

17. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

19. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit
21. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

22. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

23. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

24. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

26. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

27. Duration of startup and shutdown (as defined in Rule 4305) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 19B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

30. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rules 4406, 4.0 and 4801, 3.0] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, SOx (as SO2): 0.0014 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.7 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 36 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-94-15

SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT

EXPIRATION DATE: 05/31/2016

SECTION: NE33  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN ULN BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM (#105 DIS# 27582-80) (GEN SITE 3363)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used:
   H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory;
   total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.009 lb/MMBtu, VOC: 0.007 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

11. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

22. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-95-15
EXPIRATION DATE: 05/31/2016
SECTION: NE33  TOWNSHIP: 28S  RANGE: 21E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH A COEN MODEL ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (#106, DIS# 27583-80) (GEN SITE 3363)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

7. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.009 lb/MMBtu, VOC: 0.007 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

11. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purpose of permitting performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

20. Permitee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

21. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-96-17  EXPIRATION DATE: 05/31/2016
SECTION: NE33  TOWNSHIP: 28S  RANGE: 21E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH ONE COEN QLN-ULN LOW-NOX BURNER AND FLUE GAS RECIRCULATION; (#107, DIS# 27583-80) (GEN SITE 3363)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

7. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.008 lb/MMBtu, VOC: 0.007 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

11. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1109, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate NO determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4305, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

22. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Natural gas combusted in this unit shall consist primarily of methane and contain less than 5% by weight hydrocarbons heavier than butane. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rules 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.004 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 6.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-116-19
EXPIRATION DATE: 05/31/2016

SECTION: SW27  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #123 DIS # 27577-81 WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall return. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE KERN COUNTY, CA
9. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by the third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rule 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

13. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

14. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

15. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

16. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

18. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 47.5 ppmv @ 3% O2. [District NSR Rule and Rule 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

21. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

22. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

23. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

25. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

26. Source testing to measure NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

28. If permittee fails any compliance demonstration for NOx or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

29. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

30. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

33. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

5. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District NSR Rule] Federally Enforceable Through Title V Permit

7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

8. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation. Show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-118-20
EXPIRATION DATE: 05/31/2016
SECTION: V TOWNSHIP: V RANGE: V

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM (#121 DIS# 27575-81) (GEN SITE 2886) WITH A COEN MODEL #QLN-ULN 3.2 BURNER WITH FLUE GAS RECIRCULATION (FGR) AND JOHN ZINK/TODD COOL FUEL SYSTEM

PERMIT UNIT REQUIREMENTS


2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rules 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This unit is approved to operate at the following locations: SW28-T28S-R21E, NE35-27S-20E, and S7-T28S-R21E [District Rule 2201] Federally Enforceable Through Title V Permit

5. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

6. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. NOx emissions from this unit shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2, or 400 ppmv CO @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

8. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

13. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit
19. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from this unit shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

8. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4305. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Approved locations for this steam generator are: Sec. 12 T30S R21E and Sec. 07 T30S R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2529, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

10. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2520, 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-122-22                      EXPIRATION DATE: 05/31/2016

SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH A COEN ULN BURNER, WITH FLUE GAS
RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#132, DIS# 28714-83) (CALSO
LEASE)

PERMIT UNIT REQUIREMENTS

1. Approved locations for this location are: Sec. 12 T30S R21E and Sec. 13 T30S R21E. [District Rule 2201] Federally
   Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201]
   Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
   of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel
   testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly
   testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
   every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
   using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
   performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
   compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
   annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
   Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
   sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
   H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
   sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
   Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
   fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
   ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
   Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

10. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-123-20
SECTION: NE29  TOWNSHIP: 28S  RANGE: 21E
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM, AND PIPING FORM S-1547-1079, (#133, DIS# 28715-83) (GEN SITE 2972)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2.1 and 4801, 3.1] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

7. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.014 lb/MBtu, SOx (as SO2): 0.002 lb/MBtu, NOx (as NO2): 0.014 lb/MBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MBtu, CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306 and, 5.1 and 4320, 5.2 & 5.4] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: NOx (as NO2): 54.0 lb/day and 7,665 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

13. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - EPA Methods 6, 6B, or 8, or ARB Methods 8 or 100 and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 - EPA Method 201A and 202, or EPA Method 5 (assume all PM is PM10). [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
PERMIT UNIT: S-1547-125-20  EXPIRATION DATE: 05/31/2016

SECTION: NW01  TOWNSHIP: 28S  RANGE: 20E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, WITH A COEN QLN-ULN 3.2 BURNER AND FLUE GAS RECIRCULATION (#135, DIS# 28717-83) (GEN SITE 121)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2.1 and 4801, 3.1] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. No less than 3.0 miles of roads shall be paved and properly maintained with hot mix asphalt material at permittee's South Belridge field on Poleline Road - From the intersection of Main Camp Road to 1/2 mile north of Entrance 'D'. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Caltrans Standard Specifications for paving and materials shall be fully satisfied. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is not more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 7,665 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of startup, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1; 4306, 5.3 & 6.1 and 4320, 5.6 & 6.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating during normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320; 5.8] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by methods specified in this permit. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rules 2201] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scfm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.7 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

11. Permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

12. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
16. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-127-20                          EXPIRATION DATE: 05/31/2016
SECTION: NE34    TOWNSHIP: 28S    RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR, WITH A COEN QLN ULN 3.2 BURNER, O2
CONTROLLER, FLUE GAS RECIRCULATION (#12-2K, DIS# 28709-83)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced
gas and purchased gas with a sulfur content not to exceed 0.75 gr/100 scf. [District Rule 2201] Federally Enforceable
Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, SOx (as SO2): 0.0214 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor H2S content of the gas prior to incineration in affected steam generators on a daily basis. If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-128-21
EXPIRATION DATE: 05/31/2016
SECTION: NW35   TOWNSHIP: 12N   RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMbtu/hr natural gas fired steam generator with a COEN model QLN-ULN low-Nox Burner, O2 Controller, and Flue gas recirculation, (MOCO #706 (South Midway), DIS# 28710-83)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Only PUC quality dry gas shall be utilized as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Natural gas combusted in this unit shall consist primarily of methane and contain less than 5% by weight hydrocarbons heavier than butane. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rules 2201, 2520, 4301, 4406, 4801] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.004 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 6.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081,7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rule 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

16. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

17. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

18. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

21. Approved locations for this equipment: Section 35 (SW quarter), T28S, R21E; and Section 26 (SE quarter), T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 47.5 ppmv @ 3% O2. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

25. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

26. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

27. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

28. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

30. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

31. Source testing to measure NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rule 4305] Federally Enforceable Through Title V Permit

32. Source testing to measure NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 4305] Federally Enforceable Through Title V Permit

33. If permittee fails any compliance demonstration for NOx or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 4305] Federally Enforceable Through Title V Permit

34. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

36. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

37. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-134-16
EXPIRATION DATE: 05/31/2016
SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH FLUE GAS RECIRCULATION, APPROVED TO
OPERATE AT VARIOUS SPECIFIED LOCATIONS, (#167, DIS# 28638-82)

PERMIT UNIT REQUIREMENTS

1. This steam generator is authorized to operate at multiple locations: NE 1/4 Sec 13, T28S, R21E and Anderson-
Fitzgerald Lease SE 1/4 Sec 26, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201]
Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c(e). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rules 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1.] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 3.2 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 52.5 lb/day or 16,425 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306.6.1] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EFA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rules 2201, 2520, 4301, 4406, 4801 and Kern County Rule 424] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.008 lb/MMBtu, VOC: 0.006 lb/MMBtu, SOx (as SO2): 0.00314 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.7 lb/day, VOC: 9.0 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

13. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of these runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-141-25  
EXPIRATION DATE: 05/31/2016

SECTION: 26  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN ULTRA LOW NOX BURNER, AN O2 CONTROLLER, FLUE GAS RECIRCULATION (FGR) SYSTEM, AND AIR POL SO2 SCRUBBER, (#126 DIS# 28602-81) (A/F DEHY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOX emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOX emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3426, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by methods specified in this permit. [District Rule 2520, 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Scrubber liquor pH shall be observed and recorded weekly during operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Records of scrubber liquor pH shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2201] Federally Enforceable Through Title V Permit

9. No less than 3.0 miles of roads shall be paved and properly maintained with hot mix asphalt material at permittee's South Belridge field on Poleline Road - From the intersection of Main Camp Road to 1/2 mile north of Entrance 'D'. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit


12. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Scrubber shall be utilized whenever TEOR gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This unit shall be fired exclusively on natural gas, which may consist of one or a mixture of fuels including vapor recovery gas, produced gas, and purchased gas. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

18. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

22. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 2520; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
23. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

24. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081,7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 - EPA Method 201A and 202, or EPA Method 5 (assume all PM is PM10). [District Rules 1081, 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

35. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-142-25
SECTION: 26    TOWNSHIP: 29S    RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND SHARED SO2 SCRUBBER LISTED ON S-1547-141, (#127 DIS# 28603-81) (A/F DEHY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

8. No less than 3.0 miles of roads shall be paved and properly maintained with hot mix asphalt material at permittee’s South Belridge field on Poleline Road – From the intersection of Main Camp Road to 1/2 mile north of Entrance ‘D’. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit


11. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Scrubber shall be utilized whenever TEOR gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070 and Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

16. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Scrubber liquor pH shall be observed and recorded weekly during operation of this unit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Records of scrubber liquor pH shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

23. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

24. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentrations, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration during the first hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201 and District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - EPA Methods 6, 6B, or 8, or ARB Methods 8 or 100 and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, or double GC for H2S and mercaptans, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 - EPA Method 201A and 202, or EPA Method 5 (assume all PM is PM10). [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permitee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-143-27
EXPIRATION DATE: 05/31/2016
SECTION: 26  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH FLUE GAS
RECIRCULATION AND SHARED SO2 SCRUBBER LISTED ON S-1547-144, (#128 DIS# 28612-82)
(ANDERSON/FITZGERALD DEHY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel
testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly
testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
anual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V
Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by methods specified in this permit. [District Rule
2520,9.4; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Scrubber liquor pH shall be observed and recorded weekly during operation of this unit. [District Rule 2520, 9.4.2]
Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE,KERN COUNTY, CA
S-1547-143-27 : Jan 18 2017 12:00PM - GOUCH
8. Records of scrubber liquor pH shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. No less than 3.0 miles of roads shall be paved and properly maintained with hot mix asphalt material at permittee’s South Belridge field on Poleline Road - From the intersection of Main Camp Road to 1/2 mile north of Entrance ‘D’. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit


12. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Scrubber shall be utilized whenever TEOR gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This unit shall be fired exclusively on natural gas, which may consist of one or a mixture of fuels including vapor recovery gas, produced gas, and purchased gas. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

18. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Scrubber liquor pH shall be maintained between 6.15 and 7.5 and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

22. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
23. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/ dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2, 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

24. The permittee shall monitor and record the stack concentration of NOX, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. If the NOX and/or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NOX and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, the determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.4; 2520, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

35. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Scrubber liquor pH shall be observed and recorded weekly during operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Records of scrubber liquor pH shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. No less than 3.0 miles of roads shall be paved and properly maintained with hot mix asphalt material at permittee’s South Belridge field on Poleline Road – From the intersection of Main Camp Road to 1/2 mile north of Entrance ‘D’. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit


12. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Scrubber shall be located on site. Duct work to steam generators may be blinded off or removed. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Scrubber shall be utilized whenever TEOR gas is incinerated in steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. This unit shall be fired exclusively on natural gas, which may consist of one or a mixture of fuels including vapor recovery gas, produced gas, and purchased gas. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

18. When scrubber is in operation, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Scrubber liquor pH shall be maintained above 6.15 and shall be continuously monitored. Compliance shall be determined on a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

22. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.058 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

24. Emission rates shall not exceed any of the following: PM10: 87.0 lb/day, SOx (as SO2): 94.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.4] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

34. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.4; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-144-27: Jan 18 2012 12:09PM - Gough
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-145-20
EXPIRATION DATE: 05/31/2016
SECTION: 12   TOWNSHIP: 30S   RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR, WITH A COEN ULN BURNER
AND FLUE GAS RECIRCULATION, AND SHARED SO2 SCRUBBER LISTED ON S-1547-141. (#130 DIS# 28721-33)
(CALSO) ALTERNATE MONITORING SCHEME A

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications,
   except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080]
   Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule
   2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title
   V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally
   Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit,
   regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally
   Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices
   to the District, shall be maintained, retained for a period of at least five years, and made available for District
   inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

8. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
   quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
   and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
   of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel
   testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly
   testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 and the NOX and CO concentrations shall be corrected to 3% O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. If the NOx and CO concentration corrected to 3% O2, as measured by the reportable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 5.2] Federally Enforceable Through Title V Permit

5. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

6. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1; 4306, 5.3 & 6.1 and 4320, 5.6 & 6.1] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.015 lb/MMBtu, SOx (as SO2): 0.030 lb/MMBtu, VOC:0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2 & 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4391, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: NOx (as NO2): 54.0 lb/day or 7665 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

11. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

12. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201 and District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized. Sample collection shall be by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070, 4.0; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-147-14

SECTION: SW27   TOWNSHIP: 28S   RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR (#125, DIS# 27579-81) WITH O2 CONTROLLER.

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from this unit shall not exceed any of the following limits: NOx (as NO2): 30 ppmv @3% O2, or 400 ppmv CO @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

6. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

8. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to OperATE No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. Permittee shall maintain accurate records of the time and duration of non operation of this unit. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

18. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-148-21
PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit

2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 19451. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

3. NOx emissions shall not exceed 75 ppmv @ 15% O2 (one-hour rolling average in accordance with 40 CFR 60.13(h)). [40 CFR 60.332(b)] Federally Enforceable Through Title V Permit

4. This is a BARCT Offset emission unit. For the purposes of Actual Emission Reduction calculations only, this unit shall be considered to have NOx emissions of 20.6 ppmv @ 15% oxygen. [District Rule 4501] Federally Enforceable Through Title V Permit

5. Except during startup, shutdown, and stack transitions, emission rates (three-hour rolling average) shall not exceed any of the following: NOx: 0.011 lb/MMBtu or 3 ppmv @ 15% O2; and CO: 0.076 lb/MMBtu or 33.9 ppmvd @15% O2. [District Rule 4703, 5.1, 5.2, and 7.2] Federally Enforceable Through Title V Permit

6. Emission rates from the gas turbine engine shall not exceed any of the following: 0.016 lb-PM10/MMBtu, 0.010 lb-SOX/MMBtu, or 0.008 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx daily emission limitation by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 1080] Federally Enforceable Through Title V Permit

8. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NOx/day; 56.5 lb-SOX/day, 90.4 lb-PM10/day, 429.4 lb-CO/day, or 45.2 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The ammonia injection rate shall not exceed 25 lb/hr. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

10. The operator shall monitor the ammonia injection rate during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

11. Startup shall be defined as the period of time, not to exceed two hours, during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703, 3.29 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Shutdown shall be defined as the period of time, not to exceed two hours, during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26 and 5.3] Federally Enforceable Through Title V Permit

13. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that the turbine’s operation transitions between the heat recovery steam generator and bypass exhaust stack, when the selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved, the transition period not exceeding two hours, and NOx emissions not exceeding 15 ppmvd, corrected to 15% O2, averaged over 2 hours, and the applicable CO compliance limits not being exceeded. [District Rule 4703] Federally Enforceable Through Title V Permit

14. Permittee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average and daily NOx emissions during days of gas turbine engine startup/shutdown or stack transition. [District Rule 1080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit

16. The owner or operator shall certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(b), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit

17. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

18. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

19. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

20. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

21. Permittee shall submit reports of excess emissions for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60.344(j). [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit

22. Permittee shall submit a CEMS written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), District Rule 1080, 8.0 and District Rule 2520, 9.6.1 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NOX and CO, as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

24. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

25. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Gas turbine engine shall be fired exclusively on PUC-regulated or FERC-regulated natural gas or natural gas with sulfur content no greater than 0.8% by weight. [40 CFR 60.333] Federally Enforceable Through Title V Permit

27. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, the sulfur content of the fuel shall be tested in accordance with 40 CFR 60.344(i). [40 CFR 60.344(i)] Federally Enforceable Through Title V Permit

28. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and fuel gas sulfur content - ASTM D3246, fuel gas hhy - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335 and District Rules 1081, 4703, 6.4 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

30. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

31. Performance testing shall be witnessed or authorized by District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

32. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transitions shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. CO emissions shall not exceed (lbs/hr) (three-hour average) = 38-(0.2)*(ambient air temperature in °Fahrenheit) (not to exceed 30 lbs/hr) and (ppmv) = 1.86*(lbs/hr) @ 15% O2 (not to exceed 55.8 ppmv). [PSD SJ 85-03] Federally Enforceable Through Title V Permit

34. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

35. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

36. EPA Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable PSD emissions limits. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

37. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
38. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; and 3) emission measurements. [District Rules 1080, 7.3; 2520, 9.4.2; 4703, 6.2.8] Federally Enforceable Through Title V Permit

41. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transitions, total hours of operation, and quantity and heat input of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit

42. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-149-20 EXPIRATION DATE: 05/31/2016
SECTION: 32 TOWNSHIP: 28S RANGE: 21E

EQUIPMENT DESCRIPTION:
21.45 MW GAS FIRED TURBINE ENGINE COGENERATION FACILITY #2 WITH GENERAL ELECTRIC MODEL LM2500
PE GAS TURBINE, UNFIRED WASTE HEAT RECOVERY STEAM GENERATOR EQUIPPED WITH SCR AND AMMONIA
INJECTION, AND BYPASS STACK EQUIPPED WITH SCR AND AMMONIA INJECTION

PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit

2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

3. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates (three-hour rolling average) shall not exceed any of the following: 0.0111 lb-NOx/MBBtu or 3 ppmv-NOx @ 15% O2, and 0.076 lb-
CO/MBBtu or 200 ppmv-d CO @15% O2. [District Rules 2201 and 4703, 5.1.2, 5.2] Federally Enforceable Through Title V Permit

4. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates shall not exceed any of the following: 0.016 lb-PM10/MBBtu, 0.010 lb-SOx/MBBtu, 0.008 lb-VOC/MBBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NOx/day, 56.5 lb-
SOx/day, 90.4 lb-PM10/day, 429.4 lb-CO/day, and 45.2 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit

7. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that the turbine's operation transitions between the heat recovery steam generator and bypass exhaust stack, when the selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved, the transition period not exceeding two hours, and NOx emissions not exceeding 15
ppmv-d, corrected to 15% O2, averaged over 2 hours, and the applicable CO compliance limits not being exceeded. [District: Rule 4703] Federally Enforceable Through Title V Permit

8. On days of gas turbine engine startup/shutdown and/or stack transition, permittee shall demonstrate compliance with NOx daily emission limitation by records of calculations using CEMS data, fuel rate data, and daily hours of operation data. [District Rule 1080] Federally Enforceable Through Title V Permit

9. Permittee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average, and DEL of NOx during days of gas turbine engine startup/shutdown or stack transition. [District Rule 1080] Federally Enforceable Through Title V Permit

10. Compliance testing shall be conducted annually as required by the District-approved plan. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit

13. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

15. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. [District Rule 4001 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit

16. The owner or operator shall install, certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(a), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit

17. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

18. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

19. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

20. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

21. Permittee shall submit a CEMS written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEMS was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), District Rule 1080, 8.0 and District Rule 2520, 9.3.2 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

22. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NOx and CO₂ as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

23. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEMS. The operator shall inform the District of the intent to shut down the CEMS at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
24. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 3.5 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 3.5 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(h) & District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, fuel gas hlv - ASTM D1826 or D1943 in conjunction with ASTM D3588. [40 CFR 60.335 and District Rules 1081, 4703, & PSD SJ 85-03] Federally Enforceable Through Title V Permit

28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

29. Performance testing shall be witnessed or authorized District by personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2 & 7.3] Federally Enforceable Through Title V Permit

30. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transition shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Source testing to measure ammonia shall be conducted using test method BAAQMD ST-1B. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of the daily calculated ammonia slip measurements. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

33. The operator shall monitor the ammonia injection rate that was established at the time of startup emission testing during CEMS breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be fired exclusively on PUC-regulated or FERC-regulated natural gas or natural gas with sulfur content no greater than 0.8% by weight. [40 CFR 60.333] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; and 3) emission measurements. [District Rules 1080, 7.3, 2520, 9.3.2 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit

36. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transition, total hours of operation, and quantity and heat input of fuel used. [District Rules 2520, 9.3.2, 4703, 6.2.6] Federally Enforceable Through Title V Permit
37. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 9/20/07). [District Rule 4703, 6.1] Federally Enforceable Through Title V Permit

38. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

39. CO emissions shall not exceed (lbs/hr) (three-hour average) = 38-(0.2)*(ambient air temperature in °Fahrenheit) (not to exceed 30 lbs/hr) and (ppmv) = 1.86*(lbs/hr) @ 15% O2 (not to exceed 55.8 ppmv). [PSD SJ 85-03] Federally Enforceable Through Title V Permit

40. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

41. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

42. EPA Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable PSD emissions limits. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

43. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-151-20
EXPIRATION DATE: 05/31/2016
SECTION: 32   TOWNSHIP: 28S   RANGE: 21E

EQUIPMENT DESCRIPTION:
21.45 MW GAS FIRED TURBINE ENGINE COGENERATION FACILITY #3 WITH GENERAL ELECTRIC MODEL LM2500
PE GAS TURBINE, UNFIRED WASTE HEAT RECOVERY STEAM GENERATOR EQUIPPED WITH SCR AND AMMONIA
INJECTION, AND BYPASS STACK EQUIPPED WITH SCR AND AMMONIA INJECTION

PERMIT UNIT REQUIREMENTS

1. Fuel consumption shall not exceed 5,650 MMBtu/day of fuel gas. [District Rule 2201] Federally
   Enforceable Through Title V Permit

2. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [District Rule
   4703, 6.4.5] Federally Enforceable Through Title V Permit

3. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates (three-hour
   rolling average) shall not exceed any of the following: 0.011 lb-NOx/MMBtu or 3 ppmv-NOx @ 15% O2, and 0.076 lb-
   CO/MMBtu or 200 ppmvd-CO @15% O2. [District Rule 4703, 5.1.2, 5.2 and District Rule 2201] Federally
   Enforceable Through Title V Permit

4. Except during periods of gas turbine engine startup/shutdown and stack transition, emission rates shall not exceed any
   of the following: 0.016 lb-PM10/MMBtu, 0.010 lb-SOx/MMBtu, or 0.008 lb-VOC/MMBtu. [District Rule 2201] Federally
   Enforceable Through Title V Permit

5. Maximum daily emission limitations (DEL) shall not exceed any of the following: 190.2 lb-NOx/day, 56.5 lb-
   SOx/day, 90.4 lb-PM10/day, 429.4 lb-CO/day, and 45.2 lb-VOC/day. [District Rule 2201] Federally
   Enforceable Through Title V Permit

6. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of
   two hours and two hours, respectively, per occurrence. [District Rule 4703, 3.25] Federally Enforceable Through Title
   V Permit

7. Stack transitions shall comply with the following criteria for HRSG Bypass Transition Period: the duration of time that
   the turbine's operation transitions between the heat recovery steam generator and bypass exhaust stack, when the
   selective catalytic reduction catalyst is not within the required temperature range or the required ammonia saturation
   level has not yet been achieved, the transition period not exceeding two hours, and NOx emissions not exceeding 15
   ppmvd, corrected to 15% O2, averaged over 2 hours, and the applicable CO compliance limits not being exceeded.
   [District Rule 4703] Federally Enforceable Through Title V Permit

8. On days of gas turbine engine startup/shutdown and/or stack transition, permittee shall demonstrate compliance with
   NOx daily emission limitation by records of calculations using CEM data, fuel rate data, and daily hours of operation
   data. [District Rule 1080] Federally Enforceable Through Title V Permit

9. Permitee shall report the following emission exceedances to the District: NOx emission rate on a three-hour average,
   and DEL of NOx during days of gas turbine engine startup/shutdown. [District Rule 1080] Federally Enforceable
   Through Title V Permit

10. Compliance testing shall be conducted annually as required by the District-approved plan. [District Rule 1081]
   Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate daily records of fuel gas consumption and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1081] Federally Enforceable Through Title V Permit

13. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

15. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR, Part 60, Appendix B. [District Rule 4001 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit

16. The owner or operator shall install, certify, maintain, operate and quality-assure a system which continuously measures and records the exhaust gas oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0, 40 CFR 60.334(b), District Rule 4703, 6.2.1, & PSD SJ 85-03] Federally Enforceable Through Title V Permit

17. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

18. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

19. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

20. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b), District Rule 1080, 7.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

21. Permittee shall submit a CEMs written report for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5), District Rule 1080, 8.0 and District Rule 2520, 9.6.1 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

22. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Excess emissions shall be defined as any consecutive 2-hour period during which the average emissions of NOx and CO, as measured by continuous monitoring system exceeds the concentration emissions limits set forth for these pollutants. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

24. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

25. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 3.5 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 3.5 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually. [40 CFR 60.335(b), District Rule 4703, 6.3 & PSD SJ 85-03] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081, 4703, & PSD SJ 85-03] Federally Enforceable Through Title V Permit

28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

29. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

30. Daily records of NOx and CO emission calculations during days of startup/shutdown or stack transition shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. CO emissions shall not exceed (lbs/hr) (three-hour average) = 38-(0.2)*(ambient air temperature in oFahrenheit) (not to exceed 30 lbs/hr) and (ppmv) = 1.86*(lbs/hr) @ 15% O2 (not to exceed 55.8 ppmv). [PSD SJ 85-03] Federally Enforceable Through Title V Permit

32. Permittee shall operate and maintain a continuous monitoring system to measure the ambient air temperature. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

33. Permittee shall operate and maintain a water injection system and instrumentation to continuously monitor and record levels of consumption of fuel and water. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

34. EPA Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable PSD emissions limits. [PSD SJ 85-03] Federally Enforceable Through Title V Permit

35. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. Source testing to measure ammonia shall be conducted using test method BAAQMD ST-1B. [District Rules 4102 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
38. The permittee shall maintain records of the daily calculated ammonia slip measurements. [District Rules 4102 and 2201] Federally Enforceable Through Title V Permit

39. The operator shall monitor the ammonia injection rate that was established at the time of startup emission testing during CEM breakdowns to demonstrate NOx emission compliance. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

40. Permittee shall maintain records of the following: 1) the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the permit unit; 2) performance testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS; 3) emission measurements and 4) all records or required monitoring data and support information. All records shall be maintained for a period of five years and available for District inspection upon request. [District Rules 1080, 7.3, 2520, 9.4.2 and 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit

41. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for stack transition, total hours of operation, and quantity and heat input of fuel used. [District Rules 2520, 9.4.2, 4703, 6.2.6] Federally Enforceable Through Title V Permit

42. Gas turbine engine shall be fired exclusively on PUC-regulated or FERC-regulated natural gas or natural gas with sulfur content no greater than 0.8% by weight. [40 CFR 60.333] Federally Enforceable Through Title V Permit

43. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 9/20/07). [District Rule 4703, 6.1.5] Federally Enforceable Through Title V Permit

44. The owner or operator shall monitor the gas turbine exhaust gas NOx emissions using a system that meets EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 3, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-152-16                                      EXPIRATION DATE: 05/31/2016
SECTION: V TOWNSHIP: V RANGE: V
EQUIPMENT DESCRIPTION:  
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR, WITH COEN ULN BURNER, WITH FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#154, DIS# 39565-88) (CALSO)

PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations: Sec. NE12, T30S, R21E and Sec. NW18, T30S, R22E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305,6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44C(g) and (h) and 60.48C). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

10. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VCC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

14. If the NOX and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee may then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.2] Federally Enforceable Through Title V Permit

18. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a period of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a period of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations, SW Sec. 35, T28S, R21E, Sec. 06, T28S, R20E and SE Sec. 26, T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Duration of start-up and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

10. Duration of refractory curing shall not exceed 30 hours each per occurrence. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rule 2080; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

12. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 5.5 and and 4306, 5.5] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-158-15

EXPIRATION DATE: 05/31/2016

SECTION: V  TOWNSHIP: V  RANGE: V

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN ULN BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#155, DIS# 33303-89) (CALSO)

PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations: Sec. NE12, T30S, R21E and Sec. 34, T30S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 1.8 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOX (as SO2): 0.005 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOX (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which the unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory; fuel gas hiv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-159-18
EXPIRATION DATE: 05/31/2016

SECTION: 16  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS-FIRED STEAM GENERATOR, WITH DONALD QN LOW NOX BURNER (#A-1 DIS# 39578-88) (LOCKWOOD) AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of suppliers-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246. D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

10. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

11. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit’s operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance, [District Rule 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

22. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

23. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-164-17
EXPIRATION DATE: 05/31/2016

SECTION: SW35   TOWNSHIP: 28S   RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A COEN QLN-ULN BURNER AND FLUE GAS
RECIRCULATION; APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (KENDON 51)

PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations, NE Sec. 35, T32S, R23E; Sec. 08, T32S, R21E and
SW Sec. 35, T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201]
Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally
Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305,6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-168-20
EXPIRATION DATE: 05/31/2016

SECTION: 22  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN QLN LOW NOX BURNER (#J-1, DIS# 27461-71) AND FLUE GAS RECIRCULATION (WIER)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel-fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on non-certified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. No less than 1.65 miles of roadway shall be paved with asphalt concrete and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

10. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2, sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MBMbtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-174-22
EXPIRATION DATE: 05/31/2016

SECTION: SW22  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (WIER J-8, DIS# 27223-74)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. No less than 1.65 miles of roadway shall be paved with asphalt concrete and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

10. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.070 lb/MMBtu, SOx (as SO2): 0.092 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: PM10: 105.0 lb/day, SOx (as SO2): 138.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 10 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of the three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-175-23
SECTION: 22  TOWNSHIP: 31S  RANGE: 22E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN QLN LOW NOX BURNER (#J-11, DIS# 27457-81) AND FLUE GAS RECIRCULATION (WIER)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. No less than 1.65 miles of roadway shall be paved with asphalt concrete and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only asphalt concrete shall be used as road paving material. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

10. Compliance with particulate matter offset requirements shall be demonstrated by District inspection of roads annually 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following: PM10; 0.008 lb/MMBtu, SOx (as SO2); 0.003 lb/MMBtu, VOC; 0.003 lb/MMBtu, NOx (as NO2): 30 ppmv @3% O2; or CO: 25.8 ppmv @3% O2. [District Rules 2201, 4305] Federally Enforceable Through Title V Permit

5. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Steam generator firebox convection section and all flue gas ductwork shall be maintained to minimize emissions to the atmosphere. [District Rule 2201]

7. Steam generator shall be equipped with O2 controller. [District Rule 2201] Federally Enforceable Through Title V Permit

8. No less than 1.65 miles of roadway shall be paved with asphalt concrete and maintained in good repair. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only PUC-quality natural gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

12. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305, 5.4] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4305, 5.5] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0 and 4305, 6.1] Federally Enforceable Through Title V Permit

21. All records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-187-14

EXPIRATION DATE: 05/31/2016

SECTION: SE21  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR (#J-6 DIS# 28771-85) WITH O2 ANALYZER/CONTROLLER (GORE)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following: PM10; 0.008 lb/MMBtu, SOx (as SO2); 0.003 lb/MMBtu, VOC; 0.003 lb/MMBtu, NOx (as NO2); 30 ppmv @3% O2; or CO: 25.8 ppmv @3% O2. [District Rules 2201, 4305] Federally Enforceable Through Title V Permit

5. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District NSR Rule]

6. Steam generator firebox convection section and all flue gas ductwork shall be maintained to minimize emissions to the atmosphere.

7. Steam generator shall be equipped with O2 controller.

8. Only PUC-quality natural gas shall be used as fuel.

9. Compliance testing shall be conducted annually or as required by the District-approved plan.

10. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]

11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

12. The permittee shall maintain records of fuel usage for each day of operation, in the format approved by the District.

13. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Approved locations for this steam generator are: NE22 32S 23E, SW22 T31S R22E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.034 lb/MMBtu, SOx (as SO2): 0.220 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are a part of the Facility-wide Permit to Operate.
17. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-223-3 EXPIRATION DATE: 05/31/2016
SECTION: 22 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
30,000 BBL (1,260,000 GALLON) EXTERNAL FLOATING ROOF WET OIL TANK WITH MECHANICAL SHOE PRIMARY SEAL AND ZERO GAP WIPER-TYPE SECONDARY SEAL. (WIER)

PERMIT UNIT REQUIREMENTS

1. Tank shall store crude oil only. [District Rule 2201] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored shall not exceed 2.0 psia. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Maximum tank throughput shall not exceed 10,000 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Liquid shall be removed from tank by pipeline only. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank water draw-off shall be pumped to T600, S-1547-652. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank shall be equipped with a cover consisting of either a pontoon-type or double-deck-type cover which rests upon the surface of the liquid being stored and is equipped with a closure device between the tank shell and roof edge consisting of a primary and a secondary seal. [40 CFR 60.112a(a)(1) and District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit

7. Roof shall be floating on the liquid (i.e., off the roof leg supports) at all times except during initial fill and when tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. [40 CFR 60.112a(a)(1) and District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit

8. Accumulated area of gaps between tank wall and primary seal shall not exceed 10.0 inches per foot of tank diameter and the width of any portion of any gap shall not exceed one and one-half (1 1/2) inch. [40 CFR 60.112a(a)(1)(i)(A)] Federally Enforceable Through Title V Permit

9. Cumulative length of all gaps, between the tank shell and the primary seal: 1) Greater than one-half (1/2) inch shall not exceed 10 percent of the circumference of the tank, and 2) Greater than one-eighth (1/8) inch shall not exceed 30 percent of the circumference of the tank. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

10. The primary seal shall have no continuous gap greater than one-eighth (1/8) inch shall exceed 10 percent of the tank circumference. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

11. Gap between the tank shell and secondary seal shall not exceed one-half (1/2) inch. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

12. Cumulative length of all gaps between the tank shell and secondary seal greater than one-eighth (1/8) inch shall not exceed 5 percent of the tank circumference. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

14. There shall be no holes, tears, or other openings in the shoe, seal fabric or seal envelope of the primary seal. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

15. Secondary seal shall be installed above the primary seal. [40 CFR 60.112(a)(1)(ii)(A)] Federally Enforceable Through Title V Permit

16. Accumulated area of gaps between tank wall and the secondary seal shall not exceed 1.0 sq inch per foot of tank diameter and the width of any portion of any gap shall not exceed one-half (1/2) inch. [40 CFR 60.112(a)(1)(i)(B) and District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

17. Secondary seal shall have no openings, holes or tears in the seal or seal fabric. [40 CFR 60.112(a)(1)(ii)(C) and District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

18. Geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria for a length of at least eighteen inches in the vertical plane above the liquid surface. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

19. Secondary seal shall allow easy insertion of probes up to one and one-half (1-1/2) inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

20. Secondary seal shall extend from the roof of the tank to the shell and not be attached to the primary seal. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

21. Operator shall be exempt from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal. [40 CFR 60.112(a)(1)(ii)(D)] Federally Enforceable Through Title V Permit

22. Each roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. [40 CFR 60.112(a)(1)(iv), District Rule 4623, 5.1.6] Federally Enforceable Through Title V Permit

23. All openings in the roof used for sampling and gauging except pressure-vacuum valves, which shall be set to within 10 percent of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface. [40 CFR 60.112(a)(1)(iii) and District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit

24. All openings in the roof used for sampling and gauging except pressure-vacuum valves, which shall be set to within 10 percent of the maximum allowable working pressure of the roof, shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas-tight, except when the device or appurtenance is in use. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [40 CFR 60.112(a)(1)(iii), District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit

25. All covers, seals and lids covering openings in the roof used for sampling and gauging, except pressure-vacuum valves set to within 10 percent of the maximum allowable working pressure of the roof, shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking cover, seal, or lid, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. An operator shall reinspect a cover, seal, or lid for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Emissions from covers, seals, or lids which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting reinspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Any leak in a cover, seal, or lid shall be repaired to a leak-free condition within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Automatic bleeder vents shall be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit

33. Rim vents shall be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. [40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit

34. Operator shall perform gap measurements on primary seals within 60 days of the initial fill and at least once every 5 years thereafter. Operator shall perform gap measurements on secondary seals within 60 days of the initial fill with petroleum liquid and at least once every year thereafter. If unit is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill. [40 CFR 60.113a(a)(1)(i)(A), (B), and (C)] Federally Enforceable Through Title V Permit

35. If unit is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill in accordance with the conditions of this permit. [40 CFR 60.113a(a)(1)(i)(C)] Federally Enforceable Through Title V Permit

36. Operator shall determine gap widths in the primary and secondary seals using the following procedure: 1) Measure seal gaps, at one or more floating roof levels when the roof is floating off leg supports; 2) Measure seal gaps around entire circumference of the tank in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location; 3) Total surface area of each gap shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; 4) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank. [40 CFR 60.113a(a)(1)(ii) and (iii)] Federally Enforceable Through Title V Permit
37. Operator shall record the vessel on which the measurement was performed, date of the seal gap measurement, and raw data obtained in the measurement process in accordance with the conditions of this permit. [40 CFR 60.113a(a)(1)(i)(D)] Federally Enforceable Through Title V Permit

38. Operator shall provide the APCO with 30 days notice of the gap measurement to afford the District the opportunity to have an observer present. [40 CFR 60.113a(a)(1)(iv)] Federally Enforceable Through Title V Permit

39. If the accumulated area of gaps or gap width exceed limits, operator shall submit a report to the District within 60 days of the date of measurement. Report should include identification of the vessel, reason vessel did not meet the specifications, and a description of the actions necessary to bring the storage vessel into compliance. [40 CFR 60.113a(a)(1)(i)(E)] Federally Enforceable Through Title V Permit

40. The primary seal envelope shall be made available for unobstructed inspection by the District personal on an annual basis at locations selected along its circumference at random by the District personal and minimum of four (4) locations shall be made available. If the District personal suspects a violation may exist, further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit

41. Operator shall keep a record of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623, 6.3 and 40 CFR 60.115a(a)] Federally Enforceable Through Title V Permit

42. For crude oil with an API gravity of greater than 26 degrees, true vapor pressure shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure of Petroleum Products), and conversion of RVP to TVP at the tank's maximum organic liquid storage temperature according to the procedures in Appendix B of Rule 4623. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB, and US EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

43. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

44. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit

45. Permittee shall maintain accurate daily records of the tank throughput and shall make such records available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-234-29
EXPIRATION DATE: 05/31/2016

SECTION: NE35 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR, WITH COEN ULN BURNER AND FLUE GAS RECIRCULATION (#N-6, DIS# 27464-71) (NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
7. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.015 lb/MMBtu, SOx (as SO2): 0.066 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

11. If NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. in lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

14. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
15. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

17. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

22. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

23. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-238-21  EXPIRATION DATE: 05/31/2016
SECTION: NE35  TOWNSHIP: 32S  RANGE: 23E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN ULN BURNER
AND FLUE GAS RECIRCULATION (#N-1, DIS# 2746271) (NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements
of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended
December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these
requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-238-21   Jan 18 2012 12:16PM - DOUGHD
8. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.015 lb/MMBtu, SOx (as SO2): 0.066 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

13. If NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
16. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

8. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2.1 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305. 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.0192 lb/MMBtu, SOx (as SO2): 0.0537 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grams/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 28.8 lb/day, SOx (as SO2): 80.6 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

8. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. Upon recommencing operation, when complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Upon recommencing operation, when complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Upon recommencing operation, emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.0192 lb/MMBtu, SOx (as SO2): 0.0537 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

16. Upon recommencing operation, emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Upon recommencing operation, emission rates shall not exceed any of the following: PM10: 28.8 lb/day, SOx (as SO2): 80.6 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Upon recommencing operation, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

7. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM D1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.0192 lb/MMBtu, SOx (as SO2): 0.0537 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

16. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following: PM10: 28.8 lb/day, SOx (as SO2): 80.6 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. If either NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakthrough condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, or on a monthly basis, the unit’s operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

23. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10b or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4648, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
29. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

31. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-244-14  EXPIRATION DATE: 05/31/2016
SECTION: 01  TOWNSHIP: 11N  RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR, WITH MITSUBISHI LO-NOX
BURNER, STAGED COMBUSTION, FLUE GAS RECIRCULATION AND VAPORECOVERY PIPING FROM S-1547-707, (#103, DIS#
28694-82) (D&E SANDS)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable
   Through Title V Permit

2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule
   2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title
   V Permit

4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally
   Enforceable Through Title V Permit

5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit,
   regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally
   Enforceable Through Title V Permit

6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices
   to the District, shall be maintained, retained for a period of at least five years, and made available for District
   inspection upon request. [District Rule 1070]

7. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
   quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
   and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
   of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a
   period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel
   testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly
   testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.0192 lb/MMBtu, SOx (as SO2): 0.0537 lb/MMBtu, VOC: 0.0028 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

16. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following: PM10: 28.8 lb/day, SOx (as SO2): 80.6 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit
20. If either NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

23. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any continuous source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hiv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-248-16
EXPIRATION DATE: 05/31/2016
SECTIONS: NE35  TOWNSHIP: 32S  RANGE: 23E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR, WITH COEN ULNBURNER
AND FLUE GAS RECIRCULATION (#N-5, DIS# 28772-85) (NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total
sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through
Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
7. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.015 lb/MMBtu, SOx (as SO2): 0.066 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup, shutdown or refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

11. If the NOX and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

14. Permittee shall maintain accurate records of daily volume of natural gas and daily volume of vapor recovery gas incinerated, and maintain a log of calculated daily SO2 emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
15. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit.

16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit.

17. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit.

18. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit.

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit.

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit.

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit.

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit.

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit.

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit.
PERMIT UNIT REQUIREMENTS

1. Approved locations for this steam generator are: SW20 T28S R21E, Sec. 08 T32S R23E and SE26 T29S R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur precombustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO.  [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

10. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf.  [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2.  [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods.  [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month.  [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition.  [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period.  [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range.  [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation.  [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup and shutdown shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or NO2 - 140 pounds per hour. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.7 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The duration of start-up and shutdown (as defined in Rule 4307) shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least twice each calendar year, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rules 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 39 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of the duration of each start-up, and shutdown that exceed one hour per occurrence for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-252-10
EXPIRATION DATE: 05/31/2016

SECTION: 16   TOWNSHIP: 32S   RANGE: 23E

EQUIPMENT DESCRIPTION:
NATURAL GAS-FIRED TRICO SUPERIOR HEATER TREATER WITH A 4.2 MMBTU/HR MAXON MODEL M-PAKT
NATURAL GAS-FIRE BURNER (LOCKWOD DEHY)

PERMIT UNIT REQUIREMENTS

1. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rules 2201, 4301 and 4801] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup and shutdown shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtuh or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtuh or 50 ppmv @ 3% O2. [District Rules 2201, and 4307, 5.1] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtuh, SOx (as SO2): 0.002 lb/MMBtuh, or VOC: 0.006 lb/MMBtuh. [District Rules 2201, 4301 and 4801] Federally Enforceable Through Title V Permit

8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or NO2 - 140 pounds per hour. [District Rules 4301 and 4801] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates shall not exceed any of the following: PM10: 0.8 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.6 lb/day, NOx (as NO2): 20.2 lb/day or 1325 lb/year, or CO: 16.9 lb/day or 1361 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at twice each calendar year, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rules 4307, 6.1] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit

18. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]


9. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

19. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This steam generator is approved to operate at the following locations: Sec. NE35, T27S, R20E and Sec. 28, T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and Rule 4306, 5.1] Federally Enforceable Through Title V Permit

8. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

9. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

10. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

11. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

13. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

14. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

16. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

17. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 109, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2] Federally Enforceable Through Title V Permit

20. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This steam generator is approved to operate at the following locations: Sec. NE35, T27S, R20E; Sec. 28, T28S, R21E; Sec. NW35, T12N, R24W and SE35, T12N, R24W. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

6. Emissions from this unit shall not exceed any of the following limits: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 15 ppmv @3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

7. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 1.1 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

14. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1 and 4305, 6.2] Federally Enforceable Through Title V Permit

17. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-359-20  EXPIRATION DATE: 05/31/2016
SECTION: 33  TOWNSHIP: 28S  RANGE: 21E
EQUIPMENT DESCRIPTION:
VAPOR COLLECTION AND CONTROL SYSTEM SERVING 1657 THERMALLY ENHANCED WELLS IN SECTIONS 1, 2, 3, 4, 10, 11, 12 OF T29S, R21E, SECTIONS 33, 34, 35 OF T28S, R21E

PERMIT UNIT REQUIREMENTS

1. Vapor collection and control system can receive vapors from tank vapor control system S-1547-888, TEOR system S-1547-1079, free water knockout vessel S-1547-1104, and degassing operation S-1547-1141. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor collection system shall include 2 sulfur scrubbing systems using District approved scrubbing agents. Scrubber(s) may be by-passed only when incinerating vapors in scrubbed steam generator S-1547-47. [District Rule 2201] Federally Enforceable Through Title V Permit


4. Unscrubbed vapor may be routed to the Sec. 32 Belridge gas plant (S-1543-4) via the Del Sur gas gathering system (compressors S-1578-433, ' -434, ' -435 and emergency flare S-1548-134). [District Rule 2201] Federally Enforceable Through Title V Permit

5. Vapor collection system shall be equipped with heat exchangers, gas/liquid separators with vane-type mist eliminators, 2 gas compressors, compressor discharge knock-outs, and liquid pumps. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All produced fluids from any well served by vapor collection system which has had the casing vent closed shall be handled only in closed production equipment served by a 99% effective vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Water/VOCs condensate from all liquid knockout drums shall be pumped to production manifold, recycled to production wells for disposal, or pumped to vapor controlled storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The regeneration vessel air vent at each sulfur scrubbing system may be vented to atmosphere provided daily emissions from each vent shall not exceed 2.0 lbs VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall determine VOC content of the exhaust at each regeneration vessel air vent semi-annually. If a semi-annual VOC content analysis fails to show compliance, the regeneration vessel air vents shall be tested once per week. If compliance with the VOC content limit has been demonstrated for eight consecutive weeks, then the VOC content testing frequency shall revert to semi-annually. Gas analysis shall be performed using ASTM D-3588. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total mass flowrate of sulfur compounds in gas leaving sulfur removal systems shall not exceed 336.92 lb/day as sulfur. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Emissions of Volatile Organic Compounds (VOC) shall not exceed 1,888.1 lb/day (including regeneration vessel air vents). [District Rule 2201] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate records of sulfur content and daily vapor flow rate of all uncondensed vapors sent to approved incineration devices (S-1547-726, ‘-733’, ‘-735 through ‘-738’, ‘-742 through ‘-749’, ‘-760’, ‘-761’, ‘-762’, ‘-803’, ‘-834’, ‘-835’, and ‘-837’) for disposal. Such records shall be maintained readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall maintain with the permit a listing (updated each calendar year) of all steam-enhanced wells connected to the casing vent control system and such listing shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

16. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

17. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

18. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

19. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

20. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

21. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

22. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

23. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
24. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

25. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

26. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

27. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

28. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

29. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

30. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

31. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

32. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

33. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

34. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
35. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

36. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

37. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

38. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

39. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

40. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

41. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

42. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

43. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

44. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

45. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

46. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

47. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
48. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

49. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

50. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

51. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

52. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppm, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppm after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

53. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-361-16  EXPIRATION DATE: 05/31/2016
SECTION: 12  TOWNSHIP: 30S  RANGE: 21E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A COEN ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (#150, DIS# 39562-88) (CALSO)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]

4. While dormant, normal source testing, fuel sulfur certification, and monitoring shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1080] Federally Enforceable Through Title V Permit

8. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

15. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit
19. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are a result of a qualifying breakthrough condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppm or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [Y] [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 4305] Federally Enforceable Through Title V Permit

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

11. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

12. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

14. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

15. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

17. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

19. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit

20. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

21. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit
22. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

24. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2] Federally Enforceable Through Title V Permit

29. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 4301, 5.2.1, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

10. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108.1 (Kern), 404 (Kern), 408 (Kern), 407.2 (Kern). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

11. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

12. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. This requirement shall not supersede a more stringent NSR or PSD permit testing requirement. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

13. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

14. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

15. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

16. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305, 6.3] Federally Enforceable Through Title V Permit

18. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 25.8 ppmv @ 3% O2. [District Rules 2201 and 4305, 5.1] Federally Enforceable Through Title V Permit

20. The acceptable range of positions of the atmospheric combustion air control valve and fuel firing rates shall be established by testing emissions from this unit or other representative units, as approved by the District. The acceptable ranges shall be maintained during operation at levels for which compliance with applicable NOx and CO emission rates have been demonstrated through source testing. [District Rule 4305] Federally Enforceable Through Title V Permit
21. The atmospheric combustion air control valve position and fuel firing rates shall be recorded at least on a weekly basis. [District Rule 4305] Federally Enforceable Through Title V Permit

22. If the atmospheric combustion air control valve position or fuel firing rate deviate from the acceptable range for more than 20 minutes, the steam generator shall be automatically shutdown. [District Rule 4305] Federally Enforceable Through Title V Permit

23. The acceptable range of atmospheric combustion air control valve position shall be documented for each steam generator in a District approved plan. Permittee shall maintain a copy of the current plan with the steam generator permit. [District Rule 4305] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of the weekly atmospheric combustion air control valve position and fuel firing rate. The records must also include a description of any corrective action taken to return the atmospheric combustion air control valve position and fuel firing rate to the acceptable range. Permittee shall maintain records of steam generator automatic shutdown and corrective action taken prior to restarting the unit. [District Rule 4305] Federally Enforceable Through Title V Permit

25. Within two hours after a continuous period in which fuel flow to the unit has been shut off for 30 minutes or longer the atmospheric combustion air control valve and fuel firing rate shall be returned to the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 4305, 6.3] Federally Enforceable Through Title V Permit

27. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2] Federally Enforceable Through Title V Permit

30. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4305, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Storage temperature shall not exceed 200 deg. F. [District Rule 2201] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Only crude oil shall be stored. [District Rule 2201] Federally Enforceable Through Title V Permit

4. No truck loading shall occur. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Water draw-off shall be accomplished so as to prevent odoriferous emissions. [District Rule 4102]

6. Tank shall have no sulfur compound emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Average daily throughput (on an annual basis) shall not exceed 3,000 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC emission rate shall not exceed 0.64 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall keep accurate records of annual throughput, storage temperature and the maximum true vapor pressure (periodic sampling of no less than once a year) of liquids stored and shall make readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2 and 6.4.4] Federally Enforceable Through Title V Permit

11. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

12. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-384-3    EXPIRATION DATE: 05/31/2016
SECTION: 28    TOWNSHIP: 28S    RANGE: 21E
EQUIPMENT DESCRIPTION:
65,000 BBL (2,730,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK WITH P/V VENTS #T-470 CONNECTED TO VAPOR RECOVERY SYSTEM SHARED WITH S-1548-45 (OT&M)

PERMIT UNIT REQUIREMENTS

1. Tank vapors shall vent only through vapor collection system and discharge only to gas gathering system. [District Rule 2201] Federally Enforceable Through Title V Permit

2. P/v vents shall be set to relieve at a pressure higher than required to activate vapor compressor. [District Rule 2201] Federally Enforceable Through Title V Permit

3. During normal operation, p/v vents shall be vapor tight except for in-breathing. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Condensate shall be disposed of in a manner preventing VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 95%. [District Rule 4623, 5.6.1.] Federally Enforceable Through Title V Permit

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

8. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but no later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are not under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623 and Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-414-8
EXPIRATION DATE: 05/31/2016
SECTION: SW26   TOWNSHIP: 29S   RANGE: 22E

EQUIPMENT DESCRIPTION:
49 MMBTU/HR KALDAIR MODEL P-20-E PIPE STANDBY FLARE, SULFA TREAT VESSEL, AND GAS HYDRATING
AND DRAIN SYSTEM (A/F DEHY)

PERMIT UNIT REQUIREMENTS

1. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or
an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame
detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from
gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-
functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor
downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rule 4311, 5.4] Federally
Enforceable Through Title V Permit

2. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2]
Federally Enforceable Through Title V Permit

3. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times
when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped
flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit

4. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use
purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

5. Visible emissions from flare shall be less than 5% opacity, except for a period or periods aggregating three minutes or
less in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Only natural gas shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Volume of gas combusted in flare shall not exceed 1.2 MMscf/day and 3.15 MMscf/calendar quarter. [District Rule
2201] Federally Enforceable Through Title V Permit

8. Sulfur compound concentration (as H2S) of gas flared shall not exceed 961 ppmv. [District Rule 2201] Federally
Enforceable Through Title V Permit

9. Efficiency of sulfur removal unit shall be maintained at not less than 95% by weight. [District Rule 2201] Federally
Enforceable Through Title V Permit

10. Permittee shall demonstrate compliance with sulfur compound concentration limit and sulfur removal efficiency at
least once every 12.6 MMscf of gas treated, by sample analysis of inlet and outlet gas streams of sulfur removal unit.
[District Rule 2201] Federally Enforceable Through Title V Permit

11. Permittee shall maintain a record of all sample analysis made of inlet and outlet gas streams, and upon request, shall
make the most recent record available for District inspection. [District Rule 2201] Federally Enforceable Through Title
V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Emissions shall not exceed PM10: 2.5 lb/MMscf, SOx: 240.65 lb/MMscf (as SO2), NOx: 140 lb/MMscf (as NO2), VOC: 2.8 lb/MMscf, CO: 35 lb/MMscf. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall keep accurate records of dates and volumes of gas flared. Such records shall be retained for a period of at least five years and be made readily available for District inspection upon request. [District Rules 2201 and 4311, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-442-9
EXPIRATION DATE: 05/31/2016

SECTION: 16  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
100 BBL (4,200 GALLON) FIXED ROOF TANK T-116 (10 FT DIAMETER X 8 FT HIGH) WITH VAPOR CONTROL SYSTEM INCLUDING PRE/AFTER COOLERS, SUCTION & DISCHARGE KNOCKOUT VESSELS (S-1547-1204 AND '-1205), 2 -100 HP COMPRESSORS, 2-SULFUR SCRUBBING TOWERS, AND ASSOCIATED PIPING

PERMIT UNIT REQUIREMENTS

1. Vapor control system shall serve tanks S-1547-442, '-443, '-584 through '-587, & '-658, and produced gas piping from the Republic Lease, Sections 5, 7, and 8. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The operator shall ensure that the vapor control system is functional and is operating as designed whenever organic liquids or organic liquid vapors are contained in tanks S-1547-442, '-443, '-584 through '-587, & '-658. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. Collected vapors shall be reinjected into DOGGR approved wells or incinerated in steam generators S-1547-159 and S-1547-656. Standby incineration shall be provided in flare S-1547-588 during steam generator shut-down. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Only wells approved by the California Department of Conservation Division of Oil, Gas and Geothermal Resources shall be use for reinjection. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method specified in Section 6.4.7 of Rule 2201. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

6. Dry H2S scrubbing towers shall be utilized as necessary to maintain compliance with sulfur compounds emission limits of steam generators approved to incinerate vapors from control system. [District Rules 2201 and 4801, 3.0] Federally Enforceable Through Title V Permit

7. Sulfur scrubbing systems shall use District approved scrubbing agents. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Vapor space piping shall also be shared with produced gas piping from the Republic Lease, Sections 5, 7, and 8. [District NSR Rule] Federally Enforceable Through Title V Permit

9. VOC fugitive emissions from the vapor control system and gas components serving the tank battery shall not exceed 26.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If VOC vapor disposal device is inoperative, collected vapors shall not be vented to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Tank vapors shall only vent to vapor collection system described on this permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. VOC fugitive emissions from the tank T-116 and gas components serving the tank battery shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

17. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17 & 5.6] Federally Enforceable Through Title V Permit

18. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

19. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

20. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

21. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

22. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

23. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

25. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-443-7
EXPIRATION DATE: 05/31/2016
SECTION: 16   TOWNSHIP: 32S   RANGE: 23E

EQUIPMENT DESCRIPTION:
2,000 BBL (84,000 GALLON) FIXED ROOF (29.7 FT. DIAMETER X 26.25 FT. HIGH) CONE BOTTOM SURGE TANK T-115 CONNECTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1547-442 (LOCKWOOD DEHY)

PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 2.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

5. Except during cleaning operations, emissions shall not exceed 2.81 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Vapor control system shall be equipped with separator vessel(s), suction scrubbers, discharge scrubber(s), H2S scrubber(s), heat exchanger(s), vapor compressor(s), vapor piping to vapor control system listed in S-1135-20, uncondensed vapor line from the steam heated well vapor control system listed on S-1135-20 and vapor piping to steam generators S-1547-234, '238 and '248 or S-1135-12 and '24. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Maximum VOC content of vapor in the vapor control system piping attached to S-1135-20 shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Vapor control efficiency shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Except during authorized tank cleaning operations, the operator shall ensure that the vapor recovery system is functional and operating as designed whenever organic liquids or organic liquid vapors are present in the tanks or associated piping. The operator shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. During tank cleaning, only one tank containing liquids with a concentration greater than 35 milligrams of VOC per liter, as determined by EPA Test Method 413.2, 428.1 or 8260, shall be vented to the atmosphere at one time. [District Rule 2201] Federally Enforceable Through Title V Permit

11. There shall be no throughput during cleaning of this tank. [District Rule 2201] Federally Enforceable Through Title V Permit

12. This tank shall not be cleaned more often than once per quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank roof, seams, welds, joints, gauge hatches, sample wells, pressure relief valves, etc. shall be maintained in a leak-free condition (as defined in District Rule 4623). [District Rule 2201] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

16. Permitee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least two hours after all the liquid in the tank has been drained; or 2) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Exhaust VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 \frac{V}{Q}$, where $t$ = time, $V$ = tank volume (cubic feet), and $Q$ = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Tank cleaning shall be performed using one of the following solvents: water, hot water, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams per liter VOC content or less. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Permitee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date and time that tank cleaning was initiated, the date and time tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2080 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Tank pressure/vacuum valve (varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions by plugging the opening during removal of the varec valve. [District Rule 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections shall be conducted not more than once per quarter. Replacing and repairing of pressure transmitters shall not exceed one hour per day per transmitter. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Permitee shall maintain records of dates of periodic tank inspections. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit. 

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-461-6 EXPIRATION DATE: 05/31/2016
SECTION: NE35 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
1,000 BBL (42,000 GALLON) FIXED ROOF, WELDED PETROLEUM REJECT TANK (#T-110) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1547-460 (NATIONAL DEHY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. During tank cleaning, only one tank containing liquids with a concentration greater than 35 milligrams of VOC per liter, as determined by EPA Test Method 413.2, 428.1 or 8260, shall be vented to the atmosphere at one time. [District Rule 2201] Federally Enforceable Through Title V Permit

6. There shall be no throughput during cleaning of this tank. [District Rule 2201] Federally Enforceable Through Title V Permit

7. This tank shall not be cleaned more often than once per quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Tank vapors shall be vented to vapor control system listed on permit S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Tank shall be equipped with vapor control system set to activate prior to PV valve venting pressures. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Vapor collection system shall not discharge to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Vapor control efficiency shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

14. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device as measured by EPA Method 25. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

23. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. This permit authorizes tank cleaning that is not the result of breakdowns or maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

25. Prior to opening the tank to allow tank cleaning the following procedure must be followed: operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank pressure/vacuum valve (varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions by plugging the opening during removal of the varec valve. [District Rule 2202] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least two hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \) where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of dates of periodic tank inspections, start and completion dates/times of tank cleaning activities, and methods of cleaning used. [District Rule 2080] Federally Enforceable Through Title V Permit
PERMIT UNIT: S-1547-462-7  EXPIRATION DATE: 05/31/2016

SECTION: NE35  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
500 BBL (21,000 GALLON) WELDED, PETROLEUM FIXED ROOF SAND TANK (#T-500) WITH VAPOR CONTROL SYSTEM LISTED ON PTO # S-1547-460 (NATIONAL RECYCLE PLANT)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. During tank cleaning, only one tank containing liquids with a concentration greater than 35 milligrams of VOC per liter, as determined by EPA Test Method 413.2, 428.1 or 8260, shall be vented to the atmosphere at one time. [District Rule 2201] Federally Enforceable Through Title V Permit

6. There shall be no throughput during cleaning of this tank. [District Rule 2201] Federally Enforceable Through Title V Permit

7. This tank shall not be cleaned more often than once per quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain accurate records of true vapor pressure (periodic sampling of no less than once a year) and tank cleaning duration. Records shall be retained, and made readily available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Tank vapors shall be vented to vapor control system listed on permit S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Tank shall be equipped with vapor control system set to activate prior to PV valve venting pressures. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Vapor control efficiency shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

14. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking, that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device as measured by EPA Method 18. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

23. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

24. This permit authorizes tank cleaning that is not the result of breakdowns or maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

25. Prior to opening the tank to allow tank cleaning the following procedure must be followed: operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank pressure/vacuum valve (varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions by plugging the opening during removal of the varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least two hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \ V}{Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of dates of periodic tank inspections, start and completion dates/times of tank cleaning activities, and methods of cleaning used. [District Rule 2080] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-463-6
EXPIRATION DATE: 05/31/2016
SECTION: NE35 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
2,000 BBL (84,000 GALLON) WELDED, FIXED ROOF PETROLEUM STOCK TANK (#T-109) CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1547-460 (NATIONAL DEHY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. During tank cleaning, only one tank containing liquids with a concentration greater than 35 milligrams of VOC per liter, as determined by EPA Test Method 413.2, 428.1 or 8260, shall be vented to the atmosphere at one time. [District Rule 2201] Federally Enforceable Through Title V Permit

6. There shall be no throughput during cleaning of this tank. [District Rule 2201] Federally Enforceable Through Title V Permit

7. This tank shall not be cleaned more often than once per quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Tank vapors shall be vented to vapor control system listed on permit S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Tank shall be equipped with vapor control system set to activate prior to PV valve venting pressures. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Vapor control efficiency shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

13. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

14. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device as measured by EPA Method 18. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

24. Prior to opening the tank to allow tank cleaning the following procedure must be followed: operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank pressure/vacuum valve (varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions by plugging the opening during removal of the varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least two hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \times V}{Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of dates of periodic tank inspections, start and completion dates/times of tank cleaning activities, and methods of cleaning used. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-465-6

SECTION: NE35  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
3,000 BBL (126,000 GALLON) WELDED, FIXED ROOF PETROLEUM STOCK TANK (#T-108) WITH VAPOR CONTROL SYSTEM LISTED ON S-1547-460 (NATIONAL DEHY)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. During tank cleaning, only one tank containing liquids with a concentration greater than 35 milligrams of VOC per liter, as determined by EPA Test Method 413.2, 428.1 or 8260, shall be vented to the atmosphere at one time. [District Rule 2201] Federally Enforceable Through Title V Permit

6. There shall be no throughput during cleaning of this tank. [District Rule 2201] Federally Enforceable Through Title V Permit

7. This tank shall not be cleaned more often than once per quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Tank vapors shall be vented to vapor control system listed on permit S-1547-460. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Tank shall be equipped with vapor control system set to activate prior to PV valve venting pressures. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Vapor collection system shall not discharge to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Vapor control efficiency shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

14. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

15. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
22. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device as measured by EPA Method 18. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

23. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. This permit authorizes tank cleaning that is not the result of breakdowns or maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit

25. Prior to opening the tank to allow tank cleaning the following procedure must be followed: operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed (except for PV valve venting on tanks not required to have a vapor recovery system). Drain all liquid from the tank to the maximum extent feasible prior to opening the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank pressure/vacuum valve (varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions by plugging the opening during removal of the varec valve. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least two hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \, V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Allowable methods of cleaning include using steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of dates of periodic tank inspections, start and completion dates/times of tank cleaning activities, and methods of cleaning used. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The total number of cyclic wells on this Permit shall not exceed 5 and shall be located more than 1,000 feet from an existing well vent vapor control system operated by permittee, and the operation shall be under District permit. [District Rule 4401, 4.4] Federally Enforceable Through Title V Permit

2. An accurate roster of all cyclic wells on this Permit shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request [District Rules 2201 and 4401, 4.4] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit
7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit
8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 50 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-585-8
EXPIRATION DATE: 05/31/2016

SECTION: SW16  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
5,000 BBL (210,000 GALLON) FIXED ROOF STOCK TANK T-220 (38.6 FT DIAMETER X 24 FT HIGH) CONNECTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1547-442 (LOCKWOOD DEHY)

PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimation, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-585-8; Jan 18 2012 12:11PM - GADHID
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-587-7

EXPIRATION DATE: 05/31/2016

SECTION: SW16    TOWNSHIP: 32S   RANGE: 23E

EQUIPMENT DESCRIPTION:
2,000 BBL (84,000 GALLON) FIXED ROOF, 29.7 FT. DIAMETER X 16 FT. HIGH, STOCK TANK T-160 CONNECTED TO VAPOR CONTROL SYSTEM (LOCKWOOD DEHY)

PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6] Federally Enforceable Through Title V Permit

9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-588-5
EXPIRATION DATE: 05/31/2016
SECTION: SW16    TOWNSHIP: 32S    RANGE: 23E
EQUIPMENT DESCRIPTION:
4 MMBTU/HR JOHN ZINK MODEL #EEF STANDBY FLARE, 30 FT. OVERALL HEIGHT, WITH ONE PILOT AND TYPE #EEF JOHN ZINK ARRESTOR (LOCKWOOD)

PERMIT UNIT REQUIREMENTS

1. Only natural gas shall be used as pilot fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

2. No more than 137 MSCFD of noncondensible gases from Lockwood Dehydration Facility and the Republic Lease shall be combusted in flare. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Flare shall be operated only when steam generators S-1547-159 or S-1547-656 becomes inoperable and not more than seventy-two hours in a month. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall keep accurate records of dates and volumes of gas flared. Such records shall be retained for a period of at least five years and be made available for District inspection upon request. [District Rules 2201 and 4311, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-604-2
SECTION: 01  TOWNSHIP: 11N  RANGE: 24W
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
1,000 BBL (42,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK #T-405 (D&E RECYCLE PLANT)

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of stored liquids shall be less than 0.5 psia. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1 through 6.2.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2 and 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-604-2  Jan 10 2012 12:11PM - DOUG HD
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-607-2
EXPIRATION DATE: 05/31/2016
SECTION: 01 TOWNSHIP: 11N RANGE: 24W
EQUIPMENT DESCRIPTION:
2,000 BBL (84,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK #T-403 (D&E RECYCLE PLANT)

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of stored liquids shall be less than 0.5 psia. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2 and 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-630-5
EXPIRATION DATE: 05/31/2015
SECTION: NE32  TOWNSHIP: 28S  RANGE: 21E
EQUIPMENT DESCRIPTION:
250 BBL (10,500 GALLON) FIXED ROOF PETROLEUM WASH TANK #T-4

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of stored liquids shall be less than 0.5 psia. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed, roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2 and 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-638-11
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
396 CLOSED VENT CYCLIC WELLS AND 5,384 CLOSED VENT STEAM DRIVE WELLS. (WESTSIDE)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with the permit a listing (updated each calendar year) of all steam-enhanced wells with
closed-casing vents, and such listing shall be made available for District inspection upon request. [District Rule 1070]
Federally Enforceable Through Title V Permit

2. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield
is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

3. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not
producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1]
Federally Enforceable Through Title V Permit

4. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components
exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by
the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

5. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable
Through Title V Permit

6. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of
the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production
equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is
connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be
temporarily opened during periods of attended service or repair of the well provided such activity is done as
expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-
enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system
as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

7. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection
conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at
the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all
times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow
through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than
50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection
conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with
minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than
number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

10. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

11. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

12. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

13. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

14. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

15. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

16. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

17. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

18. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

19. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

21. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

22. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

24. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

26. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

27. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

28. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

29. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

30. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

31. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

32. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all unconditioned VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 4401, 6.1] Federally Enforceable Through Title V Permit
PERMIT UNIT: S-1547-639-5

San Joaquin Valley
Air Pollution Control District

EXPIRATION DATE: 05/31/2016

SECTION: 22  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
30,000 BBL (1,260,000 GALLON) EXTERNAL FLOATING ROOF TANK, 67 FT. DIA. BY 48 FT. TALL, WITH METALLIC SHOE TYPE PRIMARY SEAL AND "ZERO GAP" FLEX-A-SEAL SECONDARY SEAL (WIER DEHY)

PERMIT UNIT REQUIREMENTS

1. Storage temperature shall not exceed 194 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be equipped with operational temperature indicator for stored liquids. [District Rule 2201] Federally Enforceable Through Title V Permit
3. True vapor pressure of stored liquids at storage temperature shall be less than 1.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Daily throughput of crude oil shall not exceed 15,000 barrels per day without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions of volatile organic compounds (VOC) shall not exceed 0.001 lb/bbl throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a cover consisting of either a pontoon-type or double-deck-type cover which rests upon the surface of the liquid being stored and is equipped with a closure device between the tank shell and roof edge consisting of a primary and a secondary seal. [40 CFR 60.112a(a)(1), District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
7. Roof shall be floating on the liquid (i.e., off the roof leg supports) at all times except during initial fill and when tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. [40 CFR 60.112a(a)(1) and District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
8. Accumulated area of gaps between tank wall and primary seal shall not exceed 10.0 inches per foot of tank diameter and the width of any portion of any gap shall not exceed one and one-half (1 1/2) inch. [40 CFR 60.112(a)(1)(i)(A)] Federally Enforceable Through Title V Permit
9. Cumulative length of all gaps, between the tank shell and the primary seal: 1) Greater than one-half (1/2) inch shall not exceed 10 percent of the circumference of the tank; and 2) Greater than one-eighth (1/8) inch shall not exceed 30 percent of the circumference of the tank. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
10. The primary seal shall have no continuous gap greater than one-eighth (1/8) inch shall exceed 10 percent of the tank circumference. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
11. Gap between the tank shell and secondary seal shall not exceed one-half (1/2) inch. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
12. Cumulative length of all gaps between the tank shell and secondary seal greater than one-eighth (1/8) inch shall not exceed 5 percent of the tank circumference. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 24 inches above the stored liquid surface. [40 CFR 60.112a(a)(1)(i)(C) and District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

14. There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope of the primary seal. [40 CFR 60.112a(a)(1)(i)(D), District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

15. Secondary seal shall be installed above the primary seal. [40 CFR 60.112a(a)(1)(ii)(A)] Federally Enforceable Through Title V Permit

16. Accumulated area of gaps between tank wall and the secondary seal shall not exceed 1.0 sq inch per foot of tank diameter and the width of any portion of any gap shall not exceed one-half (1/2) inch. [40 CFR 60.112a(a)(1)(i)(B) and District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

17. Secondary seal shall have no openings, holes or tears in the seal or seal fabric. [40 CFR 60.112a(a)(2)(ii)(C), District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

18. Geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria for a length of at least eighteen inches in the vertical plane above the liquid surface. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

19. Secondary seal shall allow easy insertion of probes up to one and one-half (1-1/2) inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

20. Secondary seal shall extend from the roof of the tank to the shell and not be attached to the primary seal. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit

21. Operator shall be exempt from the requirements for secondary seals and the secondary seal gap criteria when performing gap measurements or inspections of the primary seal. [40 CFR 60.112a(a)(1)(ii)(D)] Federally Enforceable Through Title V Permit

22. Each roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. [40 CFR 60.112a(a)(i)(iv), District Rule 4623, 5.1.6] Federally Enforceable Through Title V Permit

23. All openings in the roof used for sampling and gauging except pressure-vacuum valves, which shall be set to within 10 percent of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface. [40 CFR 60.112a(a)(1)(iii), District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit

24. All openings in the roof used for sampling and gauging except pressure-vacuum valves, which shall be set to within 10 percent of the maximum allowable working pressure of the roof, shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas-tight, except when the device or appurtenance is in use. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [40 CFR 60.112a(a)(1)(iii), District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit

25. All covers, seals and lids covering openings in the roof used for sampling and gauging, except pressure-vacuum valves set to within 10 percent of the maximum allowable working pressure of the roof, shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. A facility operator, upon detection of a leaking cover, seal, or lid, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. An operator shall reinspect a cover, seal, or lid for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Emissions from covers, seals, or lids which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting reinspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Any leak in a cover, seal, or lid shall be repaired to a leak-free condition within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Automatic bleeder vents shall be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit

33. Rim vents shall be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. [40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit

34. Operator shall perform gap measurements on primary seals within 60 days of the initial fill and at least once every 5 years thereafter. Operator shall perform gap measurements on secondary seals within 60 days of the initial fill with petroleum liquid and at least once every year thereafter. If unit is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill. [40 CFR 60.113a(1)(i)(A), (B), and (C)] Federally Enforceable Through Title V Permit

35. If unit is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill in accordance with the conditions of this permit. [40 CFR 60.113a(a)(1)(i)(C)] Federally Enforceable Through Title V Permit

36. Operator shall determine gap widths in the primary and secondary seals using the following procedure: 1) Measure seal gaps, at one or more floating roof levels when the roof is floating off leg supports; 2) Measure seal gaps around entire circumference of the tank in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location; 3) Total surface area of each gap shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; 4) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank. [40 CFR 60.113a(a)(i)(ii) and (iii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
37. Operator shall record the vessel on which the measurement was performed, date of the seal gap measurement, and raw data obtained in the measurement process in accordance with the conditions of this permit. [40 CFR 60.113a(1)(i)(D)] Federally Enforceable Through Title V Permit

38. Operator shall provide the APCO with 30 days notice of the gap measurement to afford the District the opportunity to have an observer present. [40 CFR 60.113a(1)(i)(iv)] Federally Enforceable Through Title V Permit

39. If the accumulated area of gaps or gap width exceed limits, operator shall submit a report to the District within 60 days of the date of measurement. Report should include identification of the vessel, reason vessel did not meet the specifications, and a description of the actions necessary to bring the storage vessel into compliance. [40 CFR 60.113a(1)(i)(E)] Federally Enforceable Through Title V Permit

40. The primary seal envelope shall be made available for unobstructed inspection by the District personal on an annual basis at locations selected along its circumference at random by the District personal and minimum of four (4) locations shall be made available. If the District personal suspects a violation may exist, further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit

41. Operator shall keep a record of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623, 6.3 and 40 CFR 60.115a(a)] Federally Enforceable Through Title V Permit

42. For crude oil with an API gravity of greater than 26 degrees, true vapor pressure shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure of Petroleum Products), and conversion of RVP to TVP at the tank’s maximum organic liquid storage temperature according to the procedures in Appendix B of Rule 4623. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB, and US EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

43. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

44. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit

45. Permittee shall maintain accurate daily records of the tank throughput and shall make such records available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vapor control system shall include vapor piping from free water knockouts, tanks S-1547-643 to '645, '647 to '649, & '652 to '654, with pressure relief vents (for emergency atmospheric release) located on the collection line. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall include vapor compressors with suction and discharge knockout vessels, serving tanks and vessels described above. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Vapor piping from free water knockout may connect upstream or downstream of vapor compressors to accommodate operational needs. [District Rule 2201] Federally Enforceable Through Title V Permit

4. During power-switching events, no produced fluids shall be introduced into any tank at the Weir tank battery. All production into the tanks shall cease prior to shutting down the tank vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Each power-switching event shall not exceed 2 hours, and total annual hours of vapor control system shutdown during power-switching shall not exceed 96 hours. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Prior to disconnecting power from the TVR systems, during a power-switching event, AERA shall monitor the pressure in the shutdown TVR system to determine pressure relief valve(s) pressure settings are not exceeded. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, there shall be no leaks (> 10,000 ppmv) from any vapor component in the TVR system. [District Rule 2201] Federally Enforceable Through Title V Permit

8. During power-switching events, permittee shall monitor TVR system piping and vapor components to ensure there are no leaks (> 10,000 ppmv). [District Rule 2201] Federally Enforceable Through Title V Permit

9. Vapor compressor(s) may be operated continuously or as required by demand. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Operator shall monitor vapor control system pressures on a quarterly basis to ensure that system pressure does not exceed pressure relief valve setting. [District Rule 2520] Federally Enforceable Through Title V Permit

11. Vapor control system pressure transmitters shall be inspected and maintained in good operating condition. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitter shall not exceed one hour per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Vapor disposal shall be limited to injection into the formation. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Disposal of tank vapor by injection into the formation shall only be performed using DOGGR approved wells. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
14. VOC fugitive emissions from the components in gas service on the tank, FWKO vessels, tank vapor collection piping and vapor control system shall not exceed 12.9 lb-VOC/day (includes 0.46 lb/day, 0.46 lb-VOC/quarter for VRS sensor maintenance). [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

16. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC content of THC in collected vapors shall be sampled not less than annually. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Fixed roof tank shall be fully enclosed and shall be maintained in a leak-free condition. The APCO-approved vapor control system consists of a closed vent system that collects all VOCs from the storage tank and vents them to DOGGR approved disposal well(s). The vapor control system shall be maintained in a leak-free condition. Vapor control system shall reduce VOC emissions by at least 99% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

19. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

20. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

22. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

24. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = \frac{2.3 \ V/Q}{V}$, where $t$ = time, $V$ = tank volume (cubic feet), and $Q$ = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

30. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

39. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

41. Permittee shall maintain records of DOGGR approved injection wells connected to this vapor control system, % VOC of THC in collected vapors, the date and duration of vapor control system maintenance operations, and all records of required monitoring data and support information. [District Rule 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

42. Permittee shall maintain records of date and duration of each power switching event. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

43. All records required by this permit shall be maintained and retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 1070 and 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-644-8
SECTION: SW22 TOWNSHIP: 31S RANGE: 22E
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
2,000 BBL (84,000 GALLON) FIXED ROOF, 29.7 FT. DIAMETER X 16 FT. HIGH, CRUDE OIL STOCK TANK T-420, WITH VAPOR CONTROL SYSTEM SHARED BETWEEN S-1547-643 TO -645, -647 TO -649, & -652 TO -654 (WIER CDF)

PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 1.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
14. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2520, 9.3.2 and 4623, 6.2.2] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

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1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

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15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

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18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
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24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of % VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-647-8
SECTION: SW22  TOWNSHIP: 31S  RANGE: 22E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
5,000 BBL (210,000 GALLON) FIXED ROOF, 38.6 FT. DIAMETER X 24 FT. HIGH, CRUDE OIL SURGE TANK T-460, WITH VAPOR CONTROL SYSTEM SHARED BETWEEN S-1547-643 TO -645, -647 TO -649, & -652 TO -654 (WIER CDF)

PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit
3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 2.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
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20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall: 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of % VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 3.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
13. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \[ t = 2.3 \frac{V}{Q}, \] where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, i3.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of % VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 3.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2250, 9.3.2] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking, 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of % VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-653-8  EXPIRATION DATE: 05/31/2016
SECTION: SW22  TOWNSHIP: 31S  RANGE: 22E
EQUIPMENT DESCRIPTION:
500 BBL (21,000 GALLON) FIXED ROOF, 15.3 FT. DIAMETER X 16 FT. HIGH, CRUDE OIL SLOP TANK T-610, WITH VAPOR CONTROL SYSTEM SHARED BETWEEN S-1547-643 TO -645, -647 TO -649, & -652 TO -654 (WIER CDF)

PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 3.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 °F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-653-8 Jan 18 2012 12:11PM - GDQ2KD
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


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27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be vented to vapor control system listed on S-1547-643. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during periods of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All tank gauges, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. "Leak-free" shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this is considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During power-switching events, no fluids shall be introduced into this tank and there shall be no leaks (> 10,000 ppmv) from any TVR vapor piping or components. [District Rule 2201] Federally Enforceable Through Title V Permit

8. VOC fugitive emissions from the components in gas service on the tank shall not exceed 3.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permitee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4, Oil and Gas Production Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

10. VOC content of hydrocarbons (VOC/THC) in collected vapors shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permitee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 2 hours after all of the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank liquid capacity is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \times V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Allowable methods of cleaning include using water, steam, diesel, solvents with an initial boiling point of greater than 302 °F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams/liter VOC content or less. Steam cleaning shall be allowed at locations where wastewater treatment facilities are limited or during December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall re-inspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) minimize the leak within 15 calendar days; and 2) if the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit


26. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the methods of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The operator shall maintain records of % VOC of THC in collected vapors, and all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-656-16
EXPIRATION DATE: 05/31/2016
SECTION: 16  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN UNL BURNER, WITH FLUE GAS RECIRCULATION (LOCKWOOD A-2, DIS# 39579-88) (NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Duration of start-up and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

7. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.7] Federally Enforceable Through Title V Permit

12. If the NOX and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOX, CC, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 2520, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

22. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-658-8
SECTION: 16 TOWNSHIP: 32S RANGE: 23E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
5,000 BBL (210,000 GALLON) FIXED ROOF, 38.6 FT. DIAMETER X 32 FT. HIGH, CRUDE OIL TREATING TANK T-114 CONNECTED TO VAPOR CONTROL SYSTEM (LOCKWOOD DEHY)

PERMIT UNIT REQUIREMENTS

1. Tank vapors shall only vent to vapor collection system described on permit S-1547-442. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 2.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623, 5.6.1] Federally Enforceable Through Title V Permit

7. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623, 3.17] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623, 5.6.1] Federally Enforceable Through Title V Permit

9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2520, 9.3.2 and 4623, Table 3] Federally Enforceable Through Title V Permit

15. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-663-12                              EXPIRATION DATE: 05/31/2016
SECTION: 16    TOWNSHIP: 32S    RANGE: 23E

EQUIPMENT DESCRIPTION:
NATURAL GAS/LPG-FIRED HEATER TREATER #V-203 WITH ONE 5.0 MMBTU/HR MAXON MODEL M-PAKT BURNER
AND HEAT CROSSOVER LINE TO UNFIRED HEATER TREATER SECTION (LOCKWOOD)

PERMIT UNIT REQUIREMENTS

1. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using
ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in
the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rules 220, 4301 and 4801]
Federally Enforceable Through Title V Permit

6. Emission rates, except during startup and shutdown shall not exceed any of the following: NOx (as NO2): 0.036
lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1]
Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu,
SOx (as SO2): 0.002 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4301, 5.2 and 4801, 3.1] Federally
Enforceable Through Title V Permit

8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1
grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or NO2 - 140 pounds
per hour. [District Rules 4301 and 4801] Federally Enforceable Through Title V Permit

Permit Unit Requirements continue on next page
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.7 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least twice each calendar year, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rules 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-664-8  
EXPIRATION DATE: 05/31/2016

SECTION: SW16  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
HEATER TREATER #V-204 (LOCKWOOD DEHY) WITH A 240 BBL VESSEL WITH PRESSURE RELIEF VENT TO S-1547-586 OR S-1547-587 AND PERMIT-EXEMPT BURNER (NATURAL GAS-FIRED, 5 MMBTU/HR OR LESS)

PERMIT UNIT REQUIREMENTS

1. This pressure vessel shall maintain working pressures sufficient to prevent organic liquid loss or VOC loss to the atmosphere at all times. [District Rule 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-666-11  EXPIRATION DATE: 05/31/2016
SECTION: 35  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
4.2 MM BTU/HR NATURAL GAS-FIRED HEATER TREATER (#4) WITH ONE 4.2 MM BTU/HR MAXON MODEL M-PAKT
BURNER AND HEAT CROSSOVER LINE TO UNFIRED HEATER TREATER SECTION (NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rules 220, 4301 and 4801] Federally Enforceable Through Title V Permit

2. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rule 2201 and District Rule 4307] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (SO2): 0.002 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Emission rates shall not exceed any of the following: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or NO2 - 140 pounds per hour. [District Rules 4301 and 4801] Federally Enforceable Through Title V Permit

5. Emission rates shall not exceed any of the following: PM10: 0.8 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.6 lb/day, NOx (as NO2): 20.2 lb/day and 1,325 lb/year, or CO: 16.9 lb/day and 1,361 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Compliance with sulfur emission limits or fuel sulfur content limits may be demonstrated by firing the unit only on PUC or FERC regulated natural gas, or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit, or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 2520, 9.4.2; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. The duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The owner/operator shall monitor, at least once a month, the operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.4.1.1] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least twice each calendar year, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. The owner/operator shall maintain records to verify that the required monitoring of the operational characteristics, and tune-ups or portable NOx analyzing has been performed. [District Rule 4307, 6.1.2] Federally Enforceable Through Title V Permit

16. Tune-up records shall include: 1) date of tune-up, 2) name of technician performing tune-up, and 3) reason that they are qualified. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. Portable analyzer records shall include: 1) date of emissions analyzing, 2) results of emissions analyzing, 3) name of technician performing analyzing, 4) make and model of analyzer, 5) date of last calibration of the analyzer, and 6) a description of any adjustments made to the unit's operating parameters for the purposes of assuring compliance. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit

19. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This pressure vessel shall maintain working pressures sufficient to prevent organic liquid loss or VOC loss to the atmosphere at all times. [District Rule 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-683-5  
EXPIRATION DATE: 05/31/2016

SECTION: SW22  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, WITH FLUE GAS RECIRCULATION (W-10, DIS# 34142-93, S.N. 51106-01) (WIER #10)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. A non-resettable, totaling mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Maximum annual heat input of the unit shall not exceed 30 billion Btu per calendar year. [District Rules 2201, 4305 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 2.8 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.008 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.02 lb/MMBtu or 27 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. If FGR system on unit is used intermittently, monitoring shall consist of use of a portable analyzer. If FGR system on unit is continuously used, monitoring shall consist of either use of a portable analyzer or monitoring of FGR rate based on parameters established during initial compliance source testing. If FGR system on unit is not used, monitoring shall consist of either use of a portable analyzer or monitoring of stack O2 and burner mechanical adjustments. The alternate monitoring scheme selected for this unit shall be established prior to implementation of this Authority to Construct. [District Rule 4306, 5.7] Federally Enforceable Through Title V Permit

12. Permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
17. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-684-5
EXPIRATION DATE: 05/31/2016

SECTION: SW22  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, WITH FLUE GAS RECIRCULATION (DIS# 34141-93, S.N. 51106-02) (WIER #9)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Maximum annual heat input of the unit shall not exceed 30 billion Btu per calendar year. [District Rules 2201, 4305 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Natural gas fuel sulfur content shall not exceed 2.8 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.008 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.02 lb/MMBtu or 27 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 4405, 5.1] Federally Enforceable Through Title V Permit

11. If FGR system on unit is used intermittently, monitoring shall consist of use of a portable analyzer. If FGR system on unit is continuously used, monitoring shall consist of either use of a portable analyzer or monitoring of FGR rate based on parameters established during initial compliance source testing. If FGR system on unit is not used, monitoring shall consist of either use of a portable analyzer or monitoring of stack O2 and burner mechanical adjustments. The alternate monitoring scheme selected for this unit shall be established prior to implementation of this Authority to Construct. [District Rule 4306, 5.7] Federally Enforceable Through Title V Permit

12. Permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-697-22
SECTION: SW01  TOWNSHIP: 29S  RANGE: 21E
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, EQUIPPED WITH A COEN QLN-ULN LOW-NOX
BURNER AND FLUE GAS RECIRCULATION (#1-1A, DIS# 28617-82)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel source content test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable
Through Title V Permit

4. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using one of the
following: test the sulfur content of each fuel source or determine that the concentration of sulfur compounds in the
exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules
2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through
Title V Permit

7. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the
sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet,
no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by
volume. [District Rule 4320, 5.7 and 5.2] Federally Enforceable Through Title V Permit

8. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S:
ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945.
[District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.03 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 12.0 lb/day, SOx (as SO2): 4.5 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 7665 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-699-3
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
78 BHP PORTABLE EMERGENCY STANDBY DIESEL FIRED JOHN DEERE MODEL CD4239F IC ENGINE POWERING
AIR COMPRESSOR (DEHY 27)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved
   alternative. [District Rule 4702, 5.7 and 17 CCR 93115] Federally Enforceable Through Title V Permit

2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 2201;
   4801, 3.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit

3. This engine shall be operated and maintained in proper operating condition as recommended by the engine
   manufacturer or emissions control system supplier. [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit

4. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency
   situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20
   hours per calendar year. [District Rule 4702, 4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

5. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the
   operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for
   example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine
   coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702,
   5.7] Federally Enforceable Through Title V Permit

6. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the
   number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the
   purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.)
   and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as
   an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record
   of the automated testing schedule. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when
   the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating
   that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit

8. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for
   District inspection upon request. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

9. The equipment shall not be operated within 1000 feet of any K-12 school. [District Rule 4102]

10. Engine shall only operate within the Heavy Oil Western Stationary Source. [District Rules 2201 and 4102] Federally
     Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7 and 17 CCR 93115] Federally Enforceable Through Title V Permit

2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 2201, 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

3. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit

4. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

5. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit

6. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit

8. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

9. The equipment shall not be operated within 1000 feet of any K-12 school. [District Rule 4102]

10. Engine shall only operate within the Heavy Oil Western Stationary Source. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-703-3
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
PORTABLE EMERGENCY STANDBY 209 BHP GASOLINE FIRED WAUKESHA MODEL 145GZU IC ENGINE
POWERING ELECTRICAL GENERATOR (HEAVY OIL STATIONARY SOURCE)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. The equipment shall not be operated within 1000 feet of any K-12 school. [District Rule 4102]

4. Engine shall only operate within the Heavy Oil Western Stationary Source. [District Rule 2201 and 4102] Federally Enforceable Through Title V Permit

5. Only gasoline shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District Rules 4701 and 4702, 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, 3.1] Federally Enforceable Through Title V Permit

9. Unit shall be fired on gasoline with a sulfur content of less than 0.008% by weight. [District Rule 2520] Federally Enforceable Through Title V Permit

10. Operator shall maintain copies of fuel invoices and supplier certifications of gasoline sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Records of operating hours shall be kept for units operating less than 200 hours per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. On all units which are not emergency or backup IC engines operating less than 200 hours per year, operator shall perform a source test for particulate emissions within six months of the initial Title V permit issuance. Source testing for particulate matter shall be performed according to EPA Method 5, stack gas velocity by EPA Method 2, and the stack gas moisture content by EPA Method 4. If the initial PM test result is less than or equal to 0.06 grain/dscf, then testing shall occur not less than once every 5 years. Otherwise testing shall occur not less than once every 24 months. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), and the type and quantity (cubic feet of gas or gallons of liquid) of fuel used. All records of required monitoring and support information shall also be maintained. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Operation shall include non-condensible vapor piping from vapor recovery skids to balanced system. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Collected vapors from well casing vents shall be sent to the approved incineration devices listed on this permit. Alternatively, the wells can be operated with the casing vents shut-in or collection system "balanced" by tying the casing vents together and letting the pressure balance between the well-head casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Operation shall include vapor control equipment which consists of miscellaneous knockout vessels & liquid removal pumps, heat exchangers and vapor compressors. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All produced fluids from any well served by vapor collection system which has had casing gas flow restricted or casing vent closed shall be handled only in closed production equipment served by a 99% effective vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Water/VOC condensate from all liquid knockout drums shall be pumped to the production manifold, recycled to production wells for disposal, or pumped to vapor controlled storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit a listing (updated each calendar year) of all steam-enhanced wells connected to the casing vent control system and such listing shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fugitive VOC emissions from this equipment and shared vapor control system shall not exceed 41.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain with the permit accurate fugitive component counts for this equipment and shared vapor control system, including vapor control system trunk line, according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit


10. Uncondensible gases shall only be controlled by one or more of the following options: 1) incineration in scrubbed steam generators S-1547-1, -3, -141, -142, -143, or -144; 2) incineration in standby flare S-1547-414; or 3) transmitted to Section 2 Dehydration facility (S-1547-888). [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. The requirements of SJVUAAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

12. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

13. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

14. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

15. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

16. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

17. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

18. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

19. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

20. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

21. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
22. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

23. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

24. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

25. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

26. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

27. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

28. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

29. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

30. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

31. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

32. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

33. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

35. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

36. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

37. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

38. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

39. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

40. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

41. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

42. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

43. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

44. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

45. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
46. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

47. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

48. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

49. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

50. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-707-4
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION SYSTEM SERVING 37 STEAM-DRIVE CRUDE OIL PRODUCTION WELLS, LIQUID KNOCKOUT SEPARATOR(S), COOLER(S), VAPOR COMPRESSOR(S), VAPOR COLLECTION PIPING AND PIPING FROM INLET SEPARATOR VESSELS (D&E)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with permit a current listing of all steam enhanced wells connected to this TEOR system and shall make such listing readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

2. Steam enhanced oil production wells connected to this TEOR system shall either vent to TEOR system S-1547-819 or be injected into Department of Oil Gas and Geothermal Resources (DOGGR) approved well(s). [District Rule 2201] Federally Enforceable Through Title V Permit

3. In the event of failure of any components in the vapor control system, gas flow from all wells served by this vapor control system shall be stopped by closing valve upstream of separator vessel or shall be directed through the vapor control system valves and piping which bypass the failed equipment and to the authorized steam generators. During periods when gas flow from wells is stopped, produced fluids shall be directed to tanks S-1547-843 through '853, and '884. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

9. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

11. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

12. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

13. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

14. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

15. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

16. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

17. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

18. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

19. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

20. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

22. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

24. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

26. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

27. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

28. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

29. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

30. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

31. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

32. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-708-6  EXPIRATION DATE: 05/31/2016
SECTION: NE35  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION SYSTEM SERVING FORTY-THREE (43) STEAM ENHANCED OIL PRODUCTION WELLS. (NATIONAL)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with this permit a current listing of all steam-enhanced wells connected to this TEOR system and shall make the list readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

2. VOC content of the casing gas shall not exceed 10% by weight and shall be tested annually. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

4. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

5. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

6. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

7. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

10. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

11. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

12. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

13. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

14. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

15. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

17. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

18. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

19. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

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20. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

21. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

22. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

24. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

25. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

27. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

28. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

29. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

30. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

31. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

32. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

33. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit
34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit
35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit
36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit
37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit
38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit
39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.
43. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1; and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.444(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201 and Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

17. Permitee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed either of the following: PM10: 0.005 lb/MMBTu or SOx (as SO2): 0.002 lb/MMBTu. [District Rules 2201 and 4320,5.4] Federally Enforceable Through Title V Permit

19. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBTu, NOx (as NO2): 0.018 lb/MMBTu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBTu or 40 ppmv @ 3% O2, [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2 and PSD SJ 78-11] Federally Enforceable Through Title V Permit

20. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.
22. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

29. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.
30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3, 4306, 6.3, and 4320, 6.3] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 6 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2, and 4320, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1, 4306, 6.1, and 4320, 6.1] Federally Enforceable Through Title V Permit

36. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

37. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

38. Formerly S-1511-7

39. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

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42. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Facility shall conduct annual performance tests for SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. Performance tests for SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

46. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-714-9 EXPIRATION DATE: 05/31/2016
SECTION: 19 TOWNSHIP: 26S RANGE: 21E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH UP TO 545 STEAM ENHANCED WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM AND SULFUR REMOVAL SYSTEM - LOST HILLS OIL FIELD (SEC. 12&13, T26S, R20E AND SEC. 18&19, T26S, R21E)

PERMIT UNIT REQUIREMENTS

1. Operation shall include fin fan heat exchanger and its associated components. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The VOC content of the gas going through the fin fan heat exchanger and its associated components shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Operator shall conduct quarterly gas sampling for gas going through the fin fan heat exchanger and its associated components to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. Quarterly sampling shall be reduced to annual sampling if gas samples contain VOC content equal to or less than 10% by weight for eight (8) consecutive quarterly sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of gas going through the fin fan heat exchanger and its associated components shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain a record of the VOC content test results for the gas going through the fin fan heat exchanger and its associated components for a period of five years and make such records available for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Operation shall include vapor collection piping network serving District approved tanks at Lost Hills oil treatment plants. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Operation shall include vapor collection piping network serving District approved oil/water separation systems at Lost Hills oil treatment plants. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Operation shall include miscellaneous liquid knockout vessels (separators), heat exchangers, and vapor compressors. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operation shall include vapor collection piping line interconnections and non-condensible casing gas piping to sulfur scrubbing systems. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Operation shall include at least one and no more than two sulfur scrubbing systems, each consisting of casing gas coolers and pumps, concurrent contactor vessels and separators, and chemical storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sulfur scrubbing system shall use District approved scrubbing agents, including but not limited to Exxon Sulfa Check, DOW Sulferox, WESCHEM Sulfarid, SulfaScrub, SulfaTreat, Caustic-based sulfur scrubbing systems, and Betz DX-1026 Formulations. Prior District approval shall be obtained for using alternative sulfur scrubbing agents not listed. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Scrubber regenerator vessel (if applicable) and sulfur bin ventilation (if applicable) shall, at each sulfur recovery unit, be vented to one or more of the District approved steam generators connected to desulfurized casing gas piping network. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall maintain with the permit a listing (updated annually within 60 days of permit anniversary) of all steam-enhanced wells connected to the casing vent control system and such listing shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain an updated listings (updated annually within 60 days of permit anniversary) of vapor control system equipment and permitted emissions units connected to this vapor control system and such listings shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Non-condensable gas from the vapor control system shall be scrubbed by sulfur scrubbing systems prior to incineration in steam generators S-1547-787 to -796, -825, and -830, or other District approved steam generators for TEOR gas incineration. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Wells producing to vapor-controlled tanks can be operated with the casing vents closed. [District Rule 2201] Federally Enforceable Through Title V Permit

17. All produced fluids from any well served by vapor collection system which has had its casing vent closed shall be handled only in closed production equipment served by a 99% efficient vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Water/VOCs condensate from all liquid knockout drums shall be pumped to production manifold, recycled to production wells for disposal, or pumped to vapor controlled storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Sulfur scrubbing systems shall be maintained to achieve, on average monthly basis, at least 90% control efficiency of all H2S entering the systems. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Particulate matter (PM10) emissions from TEOR gas incineration shall not exceed 17.1 lb/day (shared with all District approved steam generators). [District Rule 2201] Federally Enforceable Through Title V Permit

21. Emissions of Volatile Organic Compounds (VOC) shall not exceed 1,198.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

22. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

23. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

24. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

25. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
26. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

27. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

28. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

29. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

30. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

31. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

32. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

33. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

34. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

35. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

37. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

38. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

39. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

40. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

41. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

42. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

43. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

44. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

45. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

46. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

47. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

48. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
49. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

50. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

51. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

52. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

53. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

54. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

55. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, or a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

56. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

58. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

59. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
60. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

61. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

62. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using USEPA’s 1995 Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

63. Permittee shall maintain accurate daily records of gas sulfur content of non-condensable gas entering and leaving sulfur scrubbing systems to verify removal efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

64. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

65. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

66. Note: Formerly S-1511-22
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 4301, 5.2.1, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 49 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.). [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

14. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

15. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

16. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

17. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2, 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
19. Emissions rates shall not exceed any of the following: PM-10 0.005 lb/MMBtu, SO2 0.002 lb/MMBtu, NOx 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC 0.003 lb/MMBtu, and CO 1.3 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

20. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Permittee shall maintain records of daily quantity, higher heating value and sulfur content of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The acceptable settings for the flue gas recirculation valve shall be established by testing emissions from this unit or other representative units as approved by the District. The acceptable settings shall be those for which compliance with applicable NOx and CO emissions rates have been demonstrated through source testing. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. The flue gas recirculation valve settings shall be inspected at least on a weekly basis. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of the date and time of flue gas recirculation valve settings, and the observed setting. The records must also include a description of any corrective action taken to maintain the flue gas recirculation valve setting to within the acceptable range. These records shall be retained at the facility for a period of no less than 2 years and shall be made available for District inspection upon request. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. If the flue gas recirculation valve setting deviates from the acceptable range, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the flue gas recirculation valve settings are not corrected promptly, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits at the observed flue gas recirculation valve settings. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

29. Formerly S-1511-32 [District Rule 2201]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-722-11
EXPIRATION DATE: 05/31/2016

SECTION: SW01 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A GIDEON LOW ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) (#1-1C, BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 0.75 gr/S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following limits: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4201, 4301, 4305, 4306, 4405, 4406, 4801] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed any of the following limits: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following limits: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9,636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two or three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Formerly S-1511-47
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-723-11

SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR, WITH A COEN QLN-ULN 3.2 LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM (#2-5D) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]

3. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. If Rule 4320 fee option is selected, permittee shall provide to the District at least (7) calendar days advance notice and pay the applicable fees prior to recommencing operation. [District Rule 2080] Federally Enforceable Through Title V Permit

6. If Rule 4320 fee option is not selected, this unit shall not be re-started unless it has been tuned or retrofitted to meet the applicable Rule 4320 NOx limit. [District Rule 2080]

7. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2.1] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Steam generator shall be operated at no greater than 1,466.7 MMBtu hlv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

20. Emission rates during shutdown, startup and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.3; 4406, 4.2; 4801, 3.1] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

22. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

36. Formerly S-1511-48

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-725-11
EXPIRATION DATE: 05/31/2016

SECTION: SW01  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS STEAM GENERATOR WITH A COEN QLN-ULN LOW-NOX BURNER AND FLUE GAS RECIRCULATION (#1-1B) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and 4801.3.1] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The total gas fired in this unit, on a monthly average, shall be less than 50% PUC quality natural gas (as defined in Rule 4320), by volume. [District Rule 4320, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The permittee shall maintain monthly records of the volume of PUC quality natural gas (as defined in Rule 4320) and the total gas fired in this unit. Permittee shall keep monthly records of the percentage by volume of PUC quality gas fired and indicate if the volume of PUC quality gas fired is less than 50%. [District Rule 4320, 5.2] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 109, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.1] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of the three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305,6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

28. Formerly S-1511-50

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, state and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

33. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

35. Performance tests for SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-726-9

SECTION: NE03  TOWNSHIP: 29S  RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/Hr NATURAL GAS/VAPORE RECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPORE CONTROL SYSTEM S-1547-359. (#3-2P) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. This equipment shall not be operated for any reason until fees have been paid pursuant to sections 5.1.2, 5.2.5, and 5.3, and/or an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4320 and all other applicable District regulations. [District Rules 4305, 4306, and 4320]

5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.4.2 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with SO\textsubscript{x} emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H\textsubscript{2}S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SO\textsubscript{x} emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H\textsubscript{2}S: ASTM D6228 or grab sample analysis by double GC for H\textsubscript{2}S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1825 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2, 5.7] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Unit shall be equipped with the following: natural gas volume flowmeter, TEOR non-condensible gas volume flowmeter, and continuous operation flue gas oxygen monitor/controller. [District Rule 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

16. Steam generator shall be equipped with a programmable logic controller (PLC). [District Rule 4305] Federally Enforceable Through Title V Permit

17. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

21. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 scf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

22. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM\textsubscript{10}: 0.005 lb/MMBtu or SO\textsubscript{x} (as SO\textsubscript{2}): 0.002 lb/MMBtu. [District Rules 2201, 2520, 4201, 4301, 4406, 4801] Federally Enforceable Through Title V Permit

23. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM\textsubscript{10} emissions shall not exceed the lb/hr limit calculated as follows: PM\textsubscript{10} = {(7.0 lb/day)+(249.2 lb/day)\times (\text{fraction of total TEOR gas incinerated in this unit during testing})}/(24 hr/day). [District Rules 2201, 2520, 4201 and 4301] Federally Enforceable Through Title V Permit
24. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

25. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

26. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

27. Duration of startup and shutdown as defined in Rule 4306 shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4505, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

33. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

34. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

35. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306] Federally Enforceable Through Title V Permit

37. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

38. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

40. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

41. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201, District Rule 1070, and Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

42. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.
43. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

44. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

45. Note: Formerly S-1511-53
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Steam generator shall be operated at no greater than 1,466.7 MMBtu/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Permittee shall maintain records of daily quantity, higher heating value and sulfur content of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed either of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201, 4320, 5.4] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two (2) hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

30. Formerly S-1511-54

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Permittee shall maintain records of daily quantity, higher heating value, and sulfur content of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed either of the following: PM10: 0.005 lb/MBMbtu or SOx (as SO2): 0.002 lb/MBMbtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MBMbtu, NOx (as NO2): 0.018 lb/MBMbtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MBMbtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4405, 5.5 & 6.1 and 4306, 5.3 & 6.1] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4.2] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

24. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 108, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hiv - ASTM D1826 or D1945 in conjunction with ASTM D588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
30. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. Note: Formerly S-1511-55
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

8. This equipment shall not be operated for any reason until fees have been paid pursuant to sections 5.1.2, 5.2.5, and 5.3, and/or an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4320 and all other applicable District regulations. [District Rule 4320] Federally Enforceable Through Title V Permit

9. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.3.2 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
5-1547-729-10 Jan 18 2012 12:19PM — SOOCHD
11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 4305, 6.2; 4305, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of daily quantity, higher heating value and sulfur content of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed either of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

20. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

22. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

34. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

35. Formerly S-1511-58
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensable gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

12. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 2.1] Federally Enforceable Through Title V Permit

13. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

14. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.2 and 6.2] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, emissions from this unit shall not exceed 0.005 lb-PM10/MMBtu [District Rules 2201] Federally Enforceable Through Title V Permit

16. When fired exclusively on natural gas, emissions from this unit shall not exceed 0.002 lb-SOx/MMBtu (as SO2). [District Rules 2201, 4301, 4320, 4406, and 4801] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

20. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5, 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

34. Formerly S-1511-65

35. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

36. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

8. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320] Federally Enforceable Through Title V Permit

17. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit

18. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed either of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

21. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1and 4306, 5.1] Federally Enforceable Through Title V Permit

22. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit.

24. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit.

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit.

26. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit.

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit.

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit.

29. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit.

30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit.

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

32. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4466, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Formerly S-1511-66
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume flowmeter. [District Rules 2201 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.2] Federally Enforceable Through Title V Permit

12. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320] Federally Enforceable Through Title V Permit

13. Emissions from this unit shall not exceed 0.005 lb-PM10/MMBtu. [District Rules 2201, 4201, and 4301] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas emissions from this unit shall not exceed 0.002 lb-SOx/MBMtu (as SO2). [District Rules 2201, 4301, 5.2; 4320, 5.4; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-width basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.6] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4.; and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Sourse testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.6; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081,6.1; 4305, 6.2, 4306, 6.2, and 4320] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305,5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1, and 4320, 6.1] Federally Enforceable Through Title V Permit
30. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070, 2201, and 2520, 9.5.2] Federally Enforceable Through Title V Permit

31. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

32. Formerly S-1511-67
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-736-11
EXPIRATION DATE: 05/31/2016
SECTION: NE03  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STEAM GENERATOR, WITH NORTH AMERICAN LO-NOX BURNER ASSEMBLY, FLUE GAS RECIRCULATION, OXYGEN MONITOR/CONTROLLER, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359. (BELRIDGE #3-2E)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used;
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 4305, 6.2; 4306. 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume flowmeter. [District Rules 2201 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

13. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

14. Emissions from this unit shall not exceed 0.005 lb-PM10/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas emissions from this unit shall not exceed 0.002 lb-SOx/MMBtu (as SO2). [District Rules 2201; 4320, 5.4] Federally Enforceable Through Title V Permit

16. Emissions from this unit shall not exceed any of the following limits: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @3% O2, VOC: 0.003 lb/MMBtu or CO: 1.9 ppmv @3% O2. [District Rule 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and and 4320, 5.6] Federally Enforceable Through Title V Permit

18. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hrv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of those runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 43055.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. Permitee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070, 2201, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

30. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

31. Formerly S-1511-68

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-737-9

EXPIRATION DATE: 05/31/2016

SECTION: NE03 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STEAM GENERATOR, WITH A COEN QLN-ULN LO-NOX BURNER, FLUE GAS
RECIRCULATION (FGR) SYSTEM, OXYGEN MONITOR/CONTROLLER, AND NON-CONDENSIBLE PIPING FROM
VAPOR CONTROL SYSTEM S-1547-359 (BELRIDGE #3-2G)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable
Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one
of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in
the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume
flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-
1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V
Permit

8. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally
Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

10. Fuel H2S, total sulfur, and methane content shall be determined semi-annually. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

13. Emissions from this unit shall not exceed 0.005 lb-PM10/MMBtu. [District Rule 220] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas emissions from this unit shall not exceed 0.002 lb-SOx/MMBtu (as SO2). [District Rules 2201, 4320, 5.2] Federally Enforceable Through Title V Permit

15. The PUC quality-produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rules 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4306, 5.8] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or i0B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

30. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

32. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELS on permit S-1547-359.

33. Steam generator shall be operated at no greater than 97.78 percent of maximum design capacity heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Formerly S-1511-69

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-738-9
EXPIRATION DATE: 05/31/2016

SECTION: NE03 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSABLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359, (#3-2F) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.3.2 and 4320, 5.4] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 5.4] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume flowmeter. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

16. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = {(7.0 lb/day)+(249.2 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing)}/(24 hr/day). [District Rules 2201, 2520, 4201 and 4301] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201, District Rule 1070, and Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

34. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

35. Formerly S-1511-70
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

16. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing))/24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 5.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rules 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

31. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

33. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Steam generator shall be operated at no greater than 97.78 percent of maximum design capacity heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Formerly S-1511-81

36. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limits stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
46. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with the following: natural gas volume flowmeter and TECR non-condensible gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum TECR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

16. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)\times(fraction of total TEOR gas incinerated in this unit during testing))\times(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

31. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305.6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

33. There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Steam generator shall be operated at no greater than 97.78 percent of maximum design capacity heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Formerly S-1511-82

36. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-744-10
EXPIRATION DATE: 05/31/2016

SECTION: SE02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS- FIRED STEAM GENERATOR WITH A COEN MODEL QLNL LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSABLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359, (#2-3G) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4301, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District 2201] Federally Enforceable Through Title V Permit

16. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total vapor recovery gas incinerated in this unit during testing))/(24 hr/day). [District Rules 2201] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 5.5; 4305, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
The following test methods shall be used: NOx (pmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (pmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

SOx (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
45. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

46. Formerly S-1511-83
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-745-12
EXPIRATION DATE: 05/31/2016

SECTION: SE02 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN 3.2 LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM, AND NON-CONDENSABLE PIPING FROM VAPOUR CONTROL SYSTEM S-1547-359, (#2-3A) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

13. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

15. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: $\text{PM10} = \frac{(7.0 \text{ lb/day}) + (249.2 \text{ lb/day}) \times \text{(fraction of total vapor recovery gas gas incinerated in this unit during testing)}}{24 \text{ hr/day}}$. [District Rules 2201, 2520, 4201 and 4301] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
21. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

33. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Formerly S-1511-84

35. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

36. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. SOx (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
44. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

46. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3). EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM D1772, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

16. When fired exclusively, as a non gaseous fuel, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)*x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rule 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

19. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rules 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit
23. If either the NOx or CO concentrations corrected to 3% O\textsubscript{2}, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O\textsubscript{2} measurements, (2) the O\textsubscript{2} concentration in percent and the measured NOx and CO concentrations corrected to 3% O\textsubscript{2}, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

27. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas h/nv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

33. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

34. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Formerly S-1511-85

36. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-747-10
EXPIRATION DATE: 05/31/2016
SECTION: SE02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359, (#2-3C) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dsfc. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

16. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = (7.0 lb/day)+(249.2 lb/day)(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

19. Emission rates during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.5; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.4 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

28. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4326, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvn - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

34. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

35. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

36. Formerly S-1511-86

37. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-747-10, Jan 18 2012 12:13PM - DOUGHO
46. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

47. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

48. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and 4801.3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rules 4320, 3.8 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM D1072, D3246, D4084 or D6228. [District Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. The PUC quality produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

16. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total vapor recovery gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

19. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

21. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit
23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

27. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

33. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

34. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Formerly S-1511-87

36. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

43. Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
46. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-749-10 EXPIRATION DATE: 05/31/2016
SECTION: SE02 TOWNSHIP: 29S RANGE: 21E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HOUR NATURAL GAS/VAPOUR RECOVERY GAS FIRED STEAM GENERATOR WITH A GIDEON ULTRA
LOW NOX BURNER, FLUE GAS RECIRCULATION, NON-CONDENSIBLE PIPING FROM VAPOUR CONTROL SYSTEM
S-1547-359. (#2-3E) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of
the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in
the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
Rules 2520, 9.4.2, 4301, 5.2 and 4801.3.1] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V
Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of
SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended
December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these
requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart D (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permitee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

14. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit): H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

15. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

16. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

17. When fired exclusively on natural gas, except during shutdown, exhaust, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MBMBut or SOx (as SO2): 0.002 lb/MBMBut. [District Rules 2201] Federally Enforceable Through Title V Permit

18. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day) ÷ (249.2 lb/day) x (fraction of total vapor recovery gas gas incinerated in this unit during testing)) / (24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBBut, NOx (as NO2): 0.014 lb/MMBBut or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBBut or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

20. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBBut on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBBut. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
22. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rule 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emissions limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

32. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 700 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4648, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

36. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Formerly S-1511-88

38. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

39. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limits stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

40. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

41. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

42. Exhaust gases shall be ducted through operating scrubber(s) at all times during the operation of this unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
43. This unit shall be equipped with excess oxygen control equipment. The concentration of excess oxygen shall not exceed 3%. The excess oxygen level shall be recorded in a permanent record and shall be available for periodic inspection by the District and EPA. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

44. SOX (as SO2) emissions shall not exceed 0.16 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

45. Emission rates shall not exceed any of the following: VOC 0.003 lb/MMBtu. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

46. Facility shall conduct annual performance tests for NOx and SOx and furnish the EPA and the District a written report of the results of such tests. Performance testing may be conducted at any other time specified by the EPA. The tests shall be conducted at the maximum operating capacity of the unit. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

47. Performance tests for NOx and SOx (as SO2) shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and 60.46. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

48. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

49. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUA PCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-751-9

SECTION: NW14  TOWNSHIP: 31S  RANGE: 22E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORE RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN MODEL #QLN-ULN 3.2, FLUE GAS RECIRCULATION (FGR) SYSTEM (SHALE #5) (NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Annual heat input to steam generator shall not exceed 525.6 billion Btu hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MBMbtu, SOx (as SO2): 0.002 lb/MBMbtu or VOC: 0.003 lb/MBMbtu, NOx (as NO2): 0.018 lb/MBMbtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MBMbtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scfm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MBMbtu on average-wide basis for all units in Rule 4406 plan, NO2 - 140 pounds per hour or 0.14 pounds per MBMbtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: VOC: 4.5 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (i) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District: Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-754-15
SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN ULN BURNER, FLUE GAS
RECIRCULATION, AND NON-CONDENSABLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359. (#2-5A)
(BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for
changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable
Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule
2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080] Federally Enforceable
Through Title V Permit

5. If Rule 4320 fee option is selected, permittee shall provide to the District at least (7) calendar days advance notice and
pay the applicable fees prior to recommencing operation. [District Rule 2080] Federally Enforceable Through Title V
Permit

6. If Rule 4320 fee option is not selected, this unit shall not be re-started unless it has been tuned or retrofitted to meet the
applicable Rule 4320 NOx limit. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]
Federally Enforceable Through Title V Permit

8. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit,
regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally
Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices
to the District, shall be maintained, retained for a period of at least five years, and made available for District
inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel, and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Natural gas fuel sulfur content shall not exceed 0.75 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

20. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

22. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

23. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. If periodic monitoring of NOX, CO, and O2 concentrations is utilized and the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, all alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Note: Formerly S-1511-110
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. If Rule 4320 fee option is selected, permittee shall provide to the District at least (7) calendar days advance notice and pay the applicable fees prior to recommencing operation. [District Rule 2080] Federally Enforceable Through Title V Permit

6. If Rule 4320 fee option is not selected, this unit shall not be re-started unless it has been tuned or retrofitted to meet the applicable Rule 4320 NOx limit. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

15. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

19. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2, 4405, 5.2; 4406, 4.2 and 480i, 3.1] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

34. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Note: Formerly S-1511-111

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. If Rule 4320 fee option is selected, permittee shall provide to the District at least (7) calendar days advance notice and pay the applicable fees prior to recommencing operation. [District Rule 2080] Federally Enforceable Through Title V Permit

6. If Rule 4320 fee option is not selected, this unit shall not be re-started unless it has been tuned or retrofitted to meet the applicable Rule 4320 NOx limit. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; for H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

21. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

22. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit
24. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5]

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Note: Formerly S-1511-112

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MBMbtu, SO2: 0.002 lb/MBMbtu, VOC: 0.003 lb/MBMbtu, NOx (as NO2): 0.014 lb/MBMbtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MBMbtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOX and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100, NOX (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOX (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hiv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1, 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1511-114
PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]

5. If Rule 4320 fee option is selected, permittee shall provide to the District at least (7) calendar days advance notice and pay the applicable fees prior to recommencing operation. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. If Rule 4320 fee option is not selected, this unit shall not be re-started unless it has been tuned or retrofitted to meet the applicable Rule 4320 NOx limit. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit

21. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.1 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

22. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

23. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

32. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

33. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

34. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 3405, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

35. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

36. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

37. Note: Formerly S-1511-115

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

8. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rules 4305, 6.2; 4306. 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown or refractory curing, shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, NOx: 0.014 lb/MMBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO 1.3 ppmv @ 3% O2. [District Rules 2201, 4305. 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

11. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

13. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

14. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept on site and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

18. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit

20. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

21. Note: Formerly S-1511-116
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.3.2 and 4320, 5.4] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

13. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 scf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas emission rates shall not exceed either of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

15. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan, NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7,495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

31. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Formerly S-1511-117

34. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

35. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

36. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

37. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

38. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 78-11] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.4.2 and 4320, 5.7] Federally Enforceable Through Title V Permit

3. If the unit is fired on noncertified gaseous fuel and compliance with SOX emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit’s sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

10. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

11. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

12. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

14. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = {(7.0 lb/day)+(249.2 lb/day)\(\times\)\(\text{fraction of total TEOR gas incinerated in this unit during testing}\))\(\div\)\(24\) hr/day. [District Rules 2201] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 7,495 lb/year, or CO: 44.0 lb/day [District Rules 2201] Federally Enforceable Through Title V Permit

18. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit
20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 2201, District Rule 1070] Federally Enforceable Through Title V Permit

32. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

33. NOTE: Formerly S-1511-118
PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520, 9.4.2 and 4320, 5.7] Federally Enforceable Through Title V Permit

9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-762-9, Jan 19 2012 12:19 PM - 0002CHS
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h)) and 60.48c. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

14. Unit shall be equipped with the following: natural gas volume flowmeter, TEOR non-condensible gas volume flowmeter, and continuous operation flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Steam generator shall be equipped with a programmable logic controller (PLC). [District Rule 4305] Federally Enforceable Through Title V Permit

16. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

20. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

21. When fired exclusively on natural gas emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

22. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = (7.0 lb/day)/(249.2 lb/day)\(\times\) (fraction of total TEOR gas incinerated in this unit during testing))/(24 hr/day). [District Rules 2201, 2520, 4201, and 4301] Federally Enforceable Through Title V Permit

23. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

25. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

26. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.4; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

27. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

28. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

31. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5, 4306, 5.5, and 4320, 5.8] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
32. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 4320] Federally Enforceable Through Title V Permit

33. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

34. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

35. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

36. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

37. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

38. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

39. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made ready available for District inspection upon request for a period of five years. [District Rule 2201, District Rule 1070] Federally Enforceable Through Title V Permit

40. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELS on permit S-1547-359.

41. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

42. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

43. Formerly S-1511-119

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 2520, 9.3.2, 4305 and d4306] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.005 lb/MMBtu, SO\textsubscript{x} (as SO\textsubscript{2}): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NO\textsubscript{x} (as NO\textsubscript{2}): 0.018 lb/MMBtu or 15 ppmv @ 3% O\textsubscript{2}, or CO: 50 ppmv @ 3% O\textsubscript{2}. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO\textsubscript{2}; sulfur - 200 pounds of SO\textsubscript{2} per hour, or 2000 ppmv as SO\textsubscript{2}, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO\textsubscript{2} - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

11. The permittee shall monitor and record the stack concentration of NO\textsubscript{x}, CO, and O\textsubscript{2} at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. If either the NO\textsubscript{x} or CO concentrations corrected to 3% O\textsubscript{2}, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NO\textsubscript{x}, CO, and O\textsubscript{2} measurements, (2) the O\textsubscript{2} concentration in percent and the measured NO\textsubscript{x} and CO concentrations corrected to 3% O\textsubscript{2}, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070, 4.0; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.9; 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

25. Formerly S-1511-120

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-764-3
SECTION: SE35  TOWNSHIP: 12N  RANGE: 24W
EXPIRATION DATE: 05/31/2016
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS FIRED STEAM GENERATOR, WITH A COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (MOCO #804) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

12. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to the within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

13. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070, 4.0; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

25. Formerly S-1511-121

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-765-8
EXPIRATION DATE: 05/31/2016

SECTION: SE35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (MOCO #806) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

8. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2 and 4406, 4.21] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of start-up and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Formerly S-1511-122

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-766-10 EXPIRATION DATE: 05/31/2016
SECTION: NW35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORE RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) AND PIPING FROM TEOR WELL VENT VAPORE RECOVERY SYSTEM S-1547-819. (MOCO #604) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1 and 5.2] Federally Enforceable Through Title V Permit

13. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

16. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

18. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1981, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

30. Formerly S-1511-123

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-767-10
EXPIRATION DATE: 05/31/2016

SECTION: NW35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH COEN QLN-ULN BURNER AND PIPING FROM TEOR WELL VENT VAPOR RECOVERY SYSTEM S-1547-819 (MOCO #605) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBTu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used: H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

8. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rule 2201 and District Rules 4201, 3.1; 4301, 5.1, 5.2.1, and 5.2.3] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. If either the NO\textsubscript{x} or CO concentrations corrected to 3% O\textsubscript{2}, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NO\textsubscript{x}, CO, and O\textsubscript{2} measurements, (2) the O\textsubscript{2} concentration in percent and the measured NO\textsubscript{x} and CO concentrations corrected to 3% O\textsubscript{2}, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NO\textsubscript{x} and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NO\textsubscript{x} (ppmv) - EPA Method 7E or ARB Method 100, NO\textsubscript{x} (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO\textsubscript{x} (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-124

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-768-11  
EXPIRATION DATE: 05/31/2016

SECTION: NW35  
TOWNSHIP: 12N  
RANGE: 24W

EQUIPMENT DESCRIPTION:  
62.5 MMBTU/HR NATURAL GAS/VAPORE RECOVERY GAS FIRED STEAM GENERATOR, WITH FLUE GAS RECURRENTLATION AND PIPING FROM TEOR WELL VENT VAPORE RECOVERY SYSTEM S-1547-819. (MOCO #606) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48c. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

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Facility Name: AERA ENERGY LLC  
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
8. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per each occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081,6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-125

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SO\textsubscript{x} emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H\textsubscript{2}S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SO\textsubscript{x} emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H\textsubscript{2}S: ASTM D6228 or grab sample analysis by double GC for H\textsubscript{2}S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201, 2520] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 946.1 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Formerly S-1511-126

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-770-10
EXPIRATION DATE: 05/31/2016
SECTION: NW35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR, WITH COEN ULN BURNER,
FLUE GAS RECIRCULATION AND PIPING FROM TEOR WELL VENT VAPORECOVERY SYSTEM S-1547-819.
(MOCO #608) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100, or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name:  AERA ENERGY LLC
Location:  HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-770-10  Jan 18 2012 12:13PM - DOC0672
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emissions from this unit, except during startup, shutdown, and refractory curing, shall not exceed any of the following limits: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu or CO: 59 ppmv @ 3% O2. [District Rule 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/1000 scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4400 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. PM-10 emissions from the combustion of natural gas in this permit unit shall not exceed 0.005 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Sulfur compound emissions (as SO2) from the combustion of natural gas in this permit unit shall not exceed 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 5.4 and 4306, 4.5] Federally Enforceable Through Title V Permit

20. Permitee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

21. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 1B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Formerly S-1511-127

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-771-11  EXPIRATION DATE: 05/31/2016
SECTON: NW35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPO RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) AND PIPING FROM TEOR WELL VENT VAPO RECOVERY SYSTEM S-1547-819. (MOCO #701) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator, and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBTu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBTu, NOx (as NO2): 0.018 lb/MMBTu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBTu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBTu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBTu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. Formerly S-1511-128
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. Formerly S-1511-129
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201, 2520, 4201, 4301, 4406 and 4801] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 2520, 4301, 4305, 4306 and 4405] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4801] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

18. NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. Formerly S-1511-134
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-778-11
EXPIRATION DATE: 05/31/2016
SECTION: NW35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS FIRED STEAM GENERATOR WITH A GIDEON MODEL MGW-63R1 LOW NOX BURNER, FLUE GAS RECIRCULATION AND PIPING FROM TEOR WELL VENT VAPOUR RECOVERY SYSTEM S-1547-819, MOCO (#506) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.0146 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 7994 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

30. Formerly S-1511-135

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. Formerly S-1511-136
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201; PSD SJ 89-01] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown, and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/cfm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentration is corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of the three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

43. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-137
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201; PSD SJ 89-01] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing from the combustion of natural gas, shall not exceed any of the following: PM10: 0.005 lb/MMBTU or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201, 2520, 4201, 4301, 4406, 4801] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Fuel or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

43. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-138

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2.1] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4.0; 4305, 5.2 and 4306, 5.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 4306] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Note: Formerly S-1511-140
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 4.0; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic-average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Note: Formerly S-1511-141
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for at least 5 years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. Note: Formerly S-1511-142

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

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23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

30. Note: Formerly S-1511-143
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Natural gas fuel sulfur content shall not exceed 1.1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 6.2; 4306, 6.2] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.3 lb/day, SOx (as SO2): 2.9 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 52.8 lb/day or 9636 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.6 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Note: Formerly S-1511-144
PERMIT UNIT: S-1547-787-7  EXPIRATION DATE: 05/31/2016

SECTION: NW19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL ULN LOW NOX BURNER. FLUE GAS RECIRCULATION AND NON-CONDENSABLE VAPOUR PIPING FROM VAPOUR CONTROL SYSTEM S-1547-714. (#401A) (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permitee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 6.1] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.5; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = (7.2 lb/day)+(17.1 lb/day)x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permitee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
22. If the NOx and/or CO concentrations, corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

30. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-714.

31. Formerly S-1511-149

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.34.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit’s sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2, 4301, 5.2 and 4801.3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensable gas from sulfur scrubbing system(s) S-1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)\(\times\)fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If the NO\textsubscript{x} and/or CO concentrations corrected to 3% O\textsubscript{2}, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakthrough condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NO\textsubscript{x}, CO, and O\textsubscript{2} measurements, (2) the O\textsubscript{2} concentration in percent and the measured NO\textsubscript{x} and CO concentrations corrected to 3% O\textsubscript{2}, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements for NO\textsubscript{x} and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NO\textsubscript{x} and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NO\textsubscript{x} (ppmv) - EPA Method 7E or ARB Method 100, NO\textsubscript{x} (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO\textsubscript{2} (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas htv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. All records required by this permit shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-714.

32. Formerly S-1511-149

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-789-7

EXPIRATION DATE: 05/31/2016

SECTION: NW19   TOWNSHIP: 26S   RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-714. (#401C) (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit’s sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

13. The PUC quality produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permitee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = [(7.2 lb/day)+(17.1 lb/day)x(fraction of total vapor recovery gas incinerated in this unit during testing)]/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406,4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320. 6.3] Federally Enforceable Through Title V Permit

26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvy - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081; 4305, 6.2 , 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 2201,4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELS on permit S-1547-714.

32. Formerly S-1511-150

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ([(7.2 lb/day)/(17.1 lb/day)]x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
21. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.6] Federally Enforceable Through Title V Permit

24. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

27. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081,6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 5.8] Federally Enforceable Through Title V Permit

31. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-714.

33. Formerly S-1511-15;
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. VOC emission rates shall not exceed 0.003 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)*(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301,5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.6] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4, 4320, 5.7] Federally Enforceable Through Title V Permit

23. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5.; and 4320, 5.8] Federally Enforceable Through Title V Permit

28. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

29. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

32. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201, 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-714.

34. Formerly S-1511-152
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-792-7
EXPIRATION DATE: 05/31/2016

SECTION: NW19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR, WITH A COEN ULN
BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPORECOVERY SYSTEM S-
1547-714. (#401F) (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48e). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

3. Unit shall be equipped with natural gas and vapor recovery gas volume flowmeters. [District Rule 2201] Federally
Enforceable Through Title V Permit

4. Only natural gas or a combination of natural gas and scrubbed non-condensable gas from sulfur scrubbing system(s) S-
1547-714 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V
Permit

5. Maximum vapor recovery gas flow rate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally
Enforceable Through Title V Permit

6. Total mass flow rate of sulfur compounds in casing gas entering District approved steam generators connected to
sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable
Through Title V Permit

7. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar
month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25)
grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one
hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally
Enforceable Through Title V Permit

8. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S:
ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945.
[District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

9. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel
meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in
the unit. [District Rule 4320, 5.7 and 6.1] Federally Enforceable Through Title V Permit

10. When fired exclusively on natural gas emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx
(as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4301, 5.2; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

12. When natural gas and vapor recovery gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: 
PM10 = {(7.2 lb/day)/(17.1 lb/day)x(fraction of total vapor recovery gas gas incinerated in this unit during testing)}/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4801] Federally Enforceable Through Title V Permit

14. Compliance with natural gas SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

19. If the NOX and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELS on permit S-1547-714.

28. Formerly S-1511-153
PERMIT UNIT: S-1547-793-8        EXPIRATION DATE: 05/31/2016
SECTION: NW19    TOWNSHIP: 26S    RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STEAM GENERATOR (401G) WITH NORTH AMERICAN LO-NOX BURNER ASSEMBLY,
FLUE GAS RECIRCULATION, OXYGEN MONITOR/CONTROLLER, AND NON-CONDENSIBLE PIPING FROM VAPOR
CONTROL SYSTEM S-1547-714 - LOST HILLS 2 LEASE

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2; 4306, 6.2 and 4320, 6.2.1] Federally Enforceable Through
Title V Permit

4. The operator shall demonstrate compliance with this unit’s sulfur compound exhaust concentration limit(s) using one
of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in
the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of
three 30-minute test runs for NOx and CO. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable
Through Title V Permit

7. Unit shall be equipped with natural gas and TEOR non-condensable gas volume flow meters and flue gas oxygen
monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas or a combination of natural gas and scrubbed non-condensable gas shall be used as fuel in this steam
generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum TEOR gas flowrate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable
Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7 and 6.1] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Emissions from this unit shall not exceed any of the following limits: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu or CO: 6 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306; 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306; 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. Compliance with SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. Permittee shall perform District-witnessed or -approved fuel gas sulfur analysis of non-TEOR gas combusted in the unit on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hgv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of daily quantity of natural gas/vapor recovery gas consumed and annual sulfur analyses of vapor recovery gas burned in this steam generator. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit
31. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201]

32. Note: Formerly S-1511-154
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-794-7 EXPIRATION DATE: 05/31/2016
SECTION: NW19 TOWNSHIP: 26S RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STEAM GENERATOR, WITH A COEN ULN LOW NOX BURNER, FLUE GAS
RECIRCULATION WITH PLC CONTROL, OXYGEN MONITOR/CONTROLLER, AND NON-CONDENSIBLE PIPING
FROM VAPOR CONTROL SYSTEM S-1547-714 (401H) (LOST HILLS 2 LEASE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
   quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
   and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
   of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
   annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
   Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
   fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
   ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through
   Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one
   of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds
   in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
   Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
   60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
   Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and TEOR non-condensable gas volume flow meters and flue gas oxygen
   monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas shall be used as fuel in this steam
   generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flowrate for this unit shall not exceed 610,800 cubic feet per day. [District Rule 2201] Federally
   Enforceable Through Title V Permit

9. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur
   scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable
   Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7 and 6.1] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing))/24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

15. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4301, 5.2; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Compliance with SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

18. Permittee shall perform District-witnessed or approved fuel gas sulfur analysis of non-TEOR gas combusted in the unit on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-burn NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

30. Permittee shall maintain records of daily quantity of natural gas/vapor recovery gas consumed and annual sulfur analyses of vapor recovery gas burned in this steam generator. [District Rule 1070 and 4320, 5.2] Federally Enforceable Through Title V Permit

31. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit

32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201, District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DEls) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201]

34. Formerly S-1511-155
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-795-7

EXPIRATION DATE: 05/31/2016

SECTION: NW19    TOWNSHIP: 26S    RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STEAM GENERATOR, A GIDEON ULTRA LOW-NOX BURNER, FLUE GAS
RECIRCULATION, OXYGEN MONITOR/CONTROLLER, AND NON-CONDENSABLE PIPING FROM VAPOR CONTROL
SYSTEM S-1547-714. (4011) (LOST HILLS 2 LEASE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of
quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount
and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type
of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable
Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one
of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in
the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District
Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and TEOR non-condensable gas volume flow meters and flue gas oxygen
monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensable gas shall be used as fuel in this steam
generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flowrate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable
Through Title V Permit

9. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur
scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable
Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

15. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)×(fraction of total TEOR gas incinerated in this unit during testing))/24 hr/day. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Compliance with SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall perform District-witnessed or -approved fuel gas sulfur analysis of non-TEOR gas combusted in the unit on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 4.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.4] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of daily quantity of natural gas/vapor recovery gas consumed and annual sulfur analyses of vapor recovery gas burned in this steam generator. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.14305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

31. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

32. There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Formerly S-1511-156

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4305, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and TEOR non-condensible gas volume flow meters and flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flowrate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permits shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.5] Federally Enforceable Through Title V Permit

15. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2, sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

17. Compliance with SOx emission rate shall be demonstrated by gas sulfur analysis and mass balance calculations annually within 60 days prior to permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Permittee shall perform District-witnessed, or approved fuel gas sulfur analysis of non-TEOR gas combusted in the unit on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of daily quantity of natural gas/vapor recovery gas consumed and annual sulfur analyses of vapor recovery gas burned in this steam generator. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.14305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

32. There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Formerly S-1511-157

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas or a combination of natural gas and TEOR well vent vapors from well vent vapor control system S-1547-819 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum heat input to steam generator shall not exceed 1,440 MMBTU/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sulfur compound emissions (as SO2) and PM10 emissions from the combustion of well vent vapors from S-1547-819 in this steam generator and all other devices authorized to combust such vapors shall not exceed the limits established on S-1547-819. [District Rules 2201, 4201, 3.1 and 4301, 5.1, 5.2.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBTu, SOX (as SO2): 0.002 lb/MMBTu, VOC: 0.003 lb/MMBTu, NOX (as NO2): 0.018 lb/MMBTu or 15.0 ppmv @ 3% O2, or CO: 0.030 lb/MMBTu or 40.0 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: VOC: 7.2 lb/day, NOX (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1511-166

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-798-10  EXPIRATION DATE: 05/31/2016

SECTION: SW14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (SHALE #2) (NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48g). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

25. Formerly S-1511-167
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-799-10
SECTION: SW14   TOWNSHIP: 31S   RANGE: 22E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (SHALE #3, NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: VOC: 7.5 lb/day, NOx (as NO2): 51 lb/day or 9461 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If periodic monitoring of NOx, CO, and O2 concentrations is utilized and the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, all alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

29. Formerly S-1511-168

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-800-10

EXPIRATION DATE: 05/31/2016

SECTION: SW14    TOWNSHIP: 31S    RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (SHALE #4, NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 4301, 5.2.1, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-800-10 Jan 10 2012 12:14PM GOUWHD
8. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu or CO: 40 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.5] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

27. Formerly S-1511-169

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Annual heat input to steam generator shall not exceed 525.6 billion Btu hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scfm calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: VOC: 7.5 lb/day, NOx (as NO2): 51.0 lb/day or 9461 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

28. Formerly S-1511-171

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. Only natural gas may be fired by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. Field gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

43. Visible emissions shall not exceed a Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be equipped with an operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

7. When TEOR gas is connected to this unit, steam generator shall be equipped with an operational volumetric TEOR gas flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall notify the District, in writing, at least 15 days prior to burning TEOR gas and when discontinuing the burning of TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 5.7 and 6.2] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu or CO: 1.9 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

13. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

15. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

19. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

21. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

22. Formerly S-1511-172
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. Unit shall be equipped with the following: natural gas volume flowmeter and TEOR non-condensible gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

9. Fuel H2S, total sulfur, and methane content shall be determined semi-annually. [District Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; 
H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

11. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7 and 6.1] Federally Enforceable Through Title V Permit

12. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-s/100 dsccf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

13. Except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: \[ \text{PM10} = \left( \frac{(7.0 \text{ lb/day}) + (249.2 \text{ lb/day}) \times \text{(fraction of total TEOR gas incinerated in this unit during testing)})}{(24 \text{ hr/day})} \right) \] [District Rule 2201; 4201, 3.0 and 4301, 5.2] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtus, NOx (as NO2): 0.014 lb/MMBtus or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtus or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 4.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscfc calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtus on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtus. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 46.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.6] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to the within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtus) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtus) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtus) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hV - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

29. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

30. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELS on permit S-1547-359.
31. Steam generator shall be operated at no greater than 97.78 percent of maximum design capacity heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Formerly S-1511-181
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-804-11  EXPIRATION DATE: 05/31/2016
SECTION: SW26  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (SOUDAN #4) (NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. This unit shall only be fired on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum heat input to steam generator shall not exceed 1,440 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 4201; 4301, 3.0; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates, including startup, shutdown, and refractory curing, shall not exceed any of the following: VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9,461 lb/year, CO: 43.2 lb/day, PM10: 7.2 lb/day, or SOx: 2.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of startup, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

28. Note: Formerly S-1511-185
PERMIT UNIT: S-1547-805-12  
SECTION: SE14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:  
625 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN QLN-ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FINLEY #9, NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201; PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
18. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4305, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

27. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

28. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
29. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

30. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

31. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

32. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4, 7E and 20, PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. Field gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
43. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

45. Formerly S-1511-186
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

9. Steam generator shall be equipped with an operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201; PSD SJ 89-02] Federally Enforceable Through Title V Permit

11. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.5 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2, sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. PM-10 and SO2 daily emission limits, when unit incinerates scrubbed non-condensible gas, shall be quantified on the mass balance basis on permit S-1547-822 for all steam generators authorized to incinerate scrubbed non-condensible gas. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
19. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201 and District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

23. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

24. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - EPA Method 6 or 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

31. Formerly S-1511-187

32. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOX - EPA methods 1 through 4, 7E and 20, PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

43. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOX: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

45. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

47. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

48. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 36, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

49. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-807-13

EXPIRATION DATE: 05/31/2016

SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN ULTRA LOW-NOX BURNER, WITH FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOUR CONTROL SYSTEM. (#2-5E) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications, except for changes specified in the conditions below. [District Rule 2201]

2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

8. This steam generator is also approved to operate at SW/4 Sec. 01, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Unit shall be equipped with natural gas volume flowmeter and flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Steam generator shall be equipped with a programmable logic controller (PLC). [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District at least 48 hours prior to transfer between approved locations. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Steam generator shall be fired with natural gas or field gas, with sulfur content (as H2S) not to exceed 15 ppmv. [District Rules 2201; 4301, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SO2: 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305; 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

14. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

15. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

16. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

19. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
23. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of fuel type, annual fuel sulfur analyses and daily volumes of fuel gas fired in this steam generator. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Note: Formerly S-1511-188 [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-808-10
PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

2. When TEOR gas is connected to this unit, steam generator shall be equipped with an operational volumetric TEOR gas flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall notify the District, in writing, at least 15 days prior to burning TEOR gas and when discontinuing the burning of TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit

5. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10 - 0.005 lb/MMBtu; SOx (as SO2) - 0.002 lb/MMBtu; VOC - 0.003 lb/MMBtu; NOx (as NO2) - 0.014 lb/MMBtu or 12 ppmv @ 3% O2; or CO - 0.030 lb/MMBtu or 40.0 ppmv @ 3% O2. [District Rule 2201 and District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10 - 7.5 lb/day; SOx (as SO2) - 3.0 lb/day; VOC - 4.5 lb/day; NOx (as NO2) - 51.0 lb/day or 7665 lb/year; or CO - 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

11. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

12. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

13. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

15. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

16. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.1] Federally Enforceable Through Title V Permit

24. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: fire the unit only on PUC or FERC regulated natural gas, test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record all dates on which this unit is fired on any noncertified fuel and record the specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306 and 4320, 6.1] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1511-189
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-809-10
EXPIRATION DATE: 05/31/2016

SECTION: SW01  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED C.E. NATCO STEAM GENERATOR, WITH A COEN MODEL ULN LOW NOX BURNER, FLUE GAS RECIRCULATION AND OXYGEN ANALYZER/CONTROLLER (#1-1D) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 & 5.2] Federally Enforceable Through Title V Permit

9. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1894. [District Rule 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-809-10  Jan 18 2012 12 5AM -0000515
10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 7665 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e.: the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

19. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Formerly S-1511-190
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-810-10  EXPIRATION DATE: 05/31/2016
SECTION: SW25  TOWNSHIP: 32S  RANGE: 23E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOl RECOVERY GAS FIRED STEAM GENERATOR, WITH COEN QLN-ULN
BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOl CONTROL SYSTEM S-
1547-824, (NEV #104) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using
ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the
laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c(e). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally
Enforceable Through Title V Permit

8. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of these runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320 [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

28. Formerly S-1511-191
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-811-11  EXPRIATION DATE: 05/31/2016
SECTION: SE35  TOWNSHIP: 12N  RANGE: 24W
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOUR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN OLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOUR CONTROL SYSTEM (MOCO #808) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.9; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated in a manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
43. Visible emissions shall not exceed a Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCOTEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

48. Formerly S-1511-193

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the fuel is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following limits: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3%O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppm or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppm) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - ARB Method 19, CO (ppm) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
43. Visible emissions shall not exceed 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

44. Any relaxation in the District’s Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

48. Formerly S-1511-194
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-819-6
EXPIRATION DATE: 05/31/2016

SECTION: 35   TOWNSHIP: 12N   RANGE: 24W

EQUIPMENT DESCRIPTION:
TEOR OPERATION W/ UP TO 900 STEAM DRIVE WELLS SERVED BY WELL CASING VENT VAPOR CONTROL AND CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC emissions from all components associated with this operation shall not exceed 410.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain for a period of five years, accurate records of fugitive inspection component counts, leak screening values in excess of 10,000 ppm, and shall, as approved by the District, calculate fugitive emissions using February 1999 CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Operation shall include liquid knockout vessels (separators), heat exchangers, and vapor compressors. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Operation shall include vapor collection piping network from well vent vapor control system and tank battery vapor control system S-1547-843 to sulfur scrubbing systems (primary & standby). [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain a current roster of wells connected to the casing collection system, and such roster shall be made readily available for District inspection upon request [District Rule 2201] Federally Enforceable Through Title V Permit

6. Primary sulfur scrubbing system shall include casing gas coolers and pumps, contactor vessels and separators, regenerator section with heat exchangers, recirculation pump & air blower, and chemical storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Standby sulfur scrubbing system shall include contactor vessels and separators. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Sulfur scrubbing system(s) shall use District approved scrubbing agents including, Exxon Sulfa Check, DOW Sulferox, WESCHEM Sulfarid, SulfaScrub, and Betz DX-1026 Formulations. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Prior District approval shall be obtained for using alternative sulfur scrubbing agents other than those listed above. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Casing vapor collection system shall be equipped with vapor flow rate indicator/recorder downstream of condensation and sulfur removal equipment measuring total non-condensable vapor flow rate. [District Rule 2201] Federally Enforceable Through Title V Permit

11. All wells approved by this permit shall have the well head casing vents routed to the TEOR well vent vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Well casing vents may be closed provided produced fluids are handled only in production facilities with District-approved emission control systems achieving at least 99% control. [District Rule 2201 and District Rule 4401] Federally Enforceable Through Title V Permit

13. An inspection and maintenance program consistent with Rule 4403 for light oil production facilities shall be implemented for stuffing boxes and polish rods of 479 newly authorized steam drive wells (identified by well roster). [District Rule 2201] Federally Enforceable Through Title V Permit

14. Sulfur bin ventilation (if applicable) shall be vented to one or more of the District approved steam generators connected to desulfurized casing gas piping network. [District Rule 2201] Federally Enforceable Through Title V Permit

15. During temporary periods of maintenance covered in the permittee's bi-annual maintenance plan the permittee may conduct maintenance or repair activities contained in the District approved bi-annual maintenance plan without shutting-in production from wells served by the well vent vapor collection system, for no more than a total of 336 hours during any one calendar year for each system. Maintenance covered by the permittee's bi-annual maintenance plan may exceed 336 hours during any one calendar year when maintenance is performed while all casing well vents covered by this permit are closed. When multiple vapor recovery systems serve the same wells in series or in parallel, a total of 336 hours of maintenance shall be allowed for all systems combined. [District Rule 2201] Federally Enforceable Through Title V Permit

16. During temporary periods of maintenance covered in the permittee's bi-annual maintenance plan, well vent vapor recovery piping may be temporarily shut-in or isolated for routine maintenance or repair activities without closing the well vents normally served by a well vent vapor collection system provided that wel vent vapors are routed to a vapor recovery system that complies with District rule 4401 and all otherwise applicable provisions of this permit. [District Rule 2201 and District Rule 4401] Federally Enforceable Through Title V Permit

17. Well vent vapor collection system piping and components shall be maintained as required by Rule 4401, and well vent vapors shall not be vented or bled-off to the atmosphere except for those actions necessary to safely isolate vessels and piping for routine maintenance. [District Rule 2201 and District Rule 4401] Federally Enforceable Through Title V Permit

18. The District shall be notified at least 48 hours prior to the start of each maintenance program. No later than 10 days after completing each maintenance episode, the permittee shall notify the District in writing of the date, time, duration, well number(s), and description of the maintenance or repair activity completed. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of the date, time, and duration of each maintenance or repair episode requiring the temporary isolation of well vent vapor recovery piping. Such records shall include well identification numbers and a description of the maintenance or repair activity completed, and shall be maintained for a period of up to 5 years, and be made readily available to the District upon request. [District Rule 2201 and District Rule 1070] Federally Enforceable Through Title V Permit

20. Permittee shall submit to the District bi-annual maintenance plans. The maintenance plan must identify each permit unit and illustrate them on a detailed map of the system, identify the period and duration of each maintenance episode for each system, an estimate of VOC emissions released during maintenance, and the procedures that will be used to maintain and isolate affected equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

21. If unscrubbed sulfur rate exceeds 109.2 lb S/day, non-condensible gas shall be scrubbed by sulfur scrubbing systems prior to incineration in steam generators S-1547-766 to '772, '777 to'781, or other District approved steam generators. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Liquid condensate from vapor recovery piping, condensation, and sulfur scrubbing systems shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Non-condensible gas from vapor control system shall not be vented to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Maximum gas flow rate from well casing vent vapor control system shall not exceed 4.09 MMscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. Total mass flow rate of sulfur compounds from sulfur scrubbing systems shall not exceed 258.0 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate daily records of gas flow rate leaving sulfur scrubbing systems, and sulfur content (by daily gas sampling) of non-condensible gas entering and leaving sulfur scrubbing systems. [District Rule 2201] Federally Enforceable Through Title V Permit

27. If sulfur scrubbing systems are not utilized, permittee shall maintain accurate daily records of total unscrubbed sulfur mass flow rate and sulfur content (by daily gas sampling) of unscrubbed non-condensible gas. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Particulate matter (as PM10) emissions from TEOR gas incineration shall not exceed 55.9 lb/day (shared with all District approved steam generators). [District Rule 2201] Federally Enforceable Through Title V Permit

29. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

31. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

32. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

33. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

34. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

35. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

36. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

37. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

38. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
39. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

40. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

41. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

42. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

43. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

44. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

45. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

46. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

47. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

48. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

49. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
50. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

51. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

52. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

53. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

54. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

55. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

56. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

57. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

58. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

59. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

60. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

61. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4326, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

62. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit
63. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

64. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

65. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

66. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

67. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmm, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmm after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

68. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

69. Note: Formerly S-1511-213

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-820-2
EXPIRATION DATE: 05/31/2016

SECTION: NW14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 324 WELLS SERVED BY VAPOR CONTROL SYSTEM WITH LIQUID KNOCK-OUT VESSELS, HEAT EXCHANGERS, & COMPRESSORS, WITH VAPOR PIPING TO APPROVED INJECTION WELLS (MIDWAY SUNSET FIELD)

PERMIT UNIT REQUIREMENTS

1. Vapor control system shall include knockout vessels, heat exchangers, and vapor compressors. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All noncondensible vapors from vapor compressor(s) shall be piped to gas injection wells only. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permitee shall reinject vapors into Department of Oil, Gas, and Geothermal Resources (DOGGR) approved gas injection wells only. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permitee shall maintain a current roster of steam enhanced wells and DOGGR approved gas injection wells connected to the casing collection system, and such listing shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Water and VOC condensate from all liquid knockout drums shall be pumped to production system. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate shall not exceed 28.1 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
9. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit
10. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

34. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

35. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

36. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit
37. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

38. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

39. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

40. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

41. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

42. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

43. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

44. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components. Identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

46. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

47. Note: Formerly S-1511-219
PERMIT UNIT REQUIREMENTS

1. Vapor control system shall include liquid knockout vessels, heat exchangers, and vapor compressors. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All noncondensible vapors from vapor compressor(s) shall be piped to gas injection wells only. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall reinject vapors into Department of Oil, Gas, and Geothermal Resources (DOGGR) approved gas injection wells only. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain a current roster of steam enhanced wells and DOGGR approved gas injection wells connected to the casing collection system, and such listing shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Water and VOC condensate from all liquid knockout drums shall be pumped to production system. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC emission rate shall not exceed 3.14 lb/(well x day). [District Rule 2201] Federally Enforceable Through Title V Permit

7. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

9. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

10. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

34. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

35. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

36. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit
37. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

38. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.50 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

39. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

40. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

41. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

42. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

43. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

44. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. The date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

46. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

47. Note: Formerly S-1511-222

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-823-7
EXPIRATION DATE: 05/31/2016

SECTION: SW25  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY SYSTEM SERVING 40 STEAM DRIVE WELLS, INCLUDING: LIQUID KNOCKOUT VESSELS, HEAT EXCHANGERS, AND COMPRESSORS. - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Uncondensed casing vapors shall be piped to sulfur scrubbing system S-1547-824 or as allowed below. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Water/VOC condensate from all liquid knockout drums shall be pumped to production manifold. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions from the TEOR operation shall not exceed the following limit: VOC - 5.23 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

9. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

10. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

12. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

13. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

14. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

15. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

16. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

17. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

18. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

19. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

20. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

21. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401; or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
22. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

23. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

24. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

26. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

27. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

28. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

29. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

30. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

31. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

32. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
44. Note: Formerly S-1511-228
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Unit shall be equipped with natural gas and TEOR non-condensible gas volume flow meters and flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Only natural gas or a combination of natural gas and scrubbed non-condensible gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Maximum TEOR gas flowrate for this unit shall not exceed 610,800 cubic feet per day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 6.1] Federally Enforceable Through Title V Permit

14. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: \( PM10 = \frac{(7.2 \text{ lb/day})+(17.1 \text{ lb/day}) \times (\text{fraction of total TEOR gas incinerated in this unit during testing})}{(24 \text{ hr/day})} \). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.1; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Compliance with SOx emission rate for non-TEOR gas shall be demonstrated annually by gas sulfur analysis and mass balance calculations. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

27. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 6.2; 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

30. Permittee shall maintain accurate records of annual sulfur analyses of and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

31. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District NSR Rule, District Rules 1070; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201]

34. Formerly S-1511-235

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested no less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992), and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Only natural gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Emission rates shall not exceed any of the following: VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9461 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

15. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvh - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two or three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

29. Formerly S-1511-238

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-827-10
EXPIRATION DATE: 05/31/2016

SECTION: SE14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM [FINLEY #11, NORTH MIDWAY]

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Annual heat input to steam generator shall not exceed 525.6 billion Btu hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 6.4] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

18. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

24. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

25. Formerly S-1511-239

26. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

27. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

28. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
29. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

30. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

31. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

32. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4, 7E and 20, PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. Only natural gas may be fired by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. Field gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. Visible emissions shall not exceed < Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

43. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Final Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
44. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-828-10
EXPIRATION DATE: 05/31/2016
SECTION: SE14 TOWNSHIP: 31S RANGE: 22E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH COEN ULN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FINLEY #12, NORTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Duration of start-up and shutdown (as define din Rule 4306) shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

8. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, per a period of five years and make such records readily available for District inspection upon request. [District Rule 2080; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

10. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Annual heat input to steam generator shall not exceed 525.6 billion Btu hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

14. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least twice a day, which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed at least once every month unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. During the 36-month source testing interval the operator shall test the unit at least twice per calendar year, from four to eight months apart by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit
19. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 8, CO (ppmv) - EPA Method 5 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - EPA Method 6 or 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hiv - D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

29. Formerly S-1511-240

30. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

32. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4, 7E and 20, PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. Only natural gas may be fired by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

43. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

45. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

47. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

48. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [Districts 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c) and (h) and 60.48(c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Annual heat input to steam generator shall not exceed 525.6 billion Btu hhv. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following PM10:
0.008 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates, except during refractory curing, shall not exceed: particulate matter - 10 pounds per hour, or 0.1
grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur
(as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds
per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through
Title V Permit

11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas
burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory
curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a
shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not
exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and
refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in
which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring
shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring.
Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the
last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the
allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as
possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed
the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District
within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of
conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The
permittee must then correct the violation, show compliance has been re-established, and resume monitoring
procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended
December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and
testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions
representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated,
maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol
approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either
taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out
over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2
concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of
exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken
to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable
Through Title V Permit

17. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from
two to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall
monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual
tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rules 4305, 6.3 and 4306,
6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
18. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201 and District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. Whenever the unit is switched to operate with the flue gas recirculation (FGR) system in the closed position, compliance source testing for NOx and CO shall be conducted within 60 days of cessation of FGR operation date unless source testing with FGR system in the closed position has occurred within the previous 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - EPA Method 6 or 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

28. Formerly S-1511-241

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SI 89-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4, 7E and 20, PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-02] Federally Enforceable Through Title V Permit

38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

39. Only natural gas may be fired by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

43. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-02] Federally Enforceable Through Title V Permit
45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-02] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-830-7

SECTION: NW19    TOWNSHIP: 26S    RANGE: 21E

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Unit shall be equipped with natural gas and TEOR non-condensible gas volume flow meters and flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Only natural gas or a combination of natural gas and scrubbed non-condensible gas shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum TEOR gas flowrate for this unit shall not exceed 610.8 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total mass flowrate of sulfur compounds in casing gas entering District approved steam generators connected to sulfur scrubbing systems of S-1547-714 shall not exceed 103.4 lb/day as S. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable through Title V Permit

12. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 6.1] Federally Enforceable through Title V Permit

13. When fired exclusively on natural gas, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201] Federally Enforceable through Title V Permit

14. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.3] Federally Enforceable through Title V Permit

15. When natural gas and TEOR gas fired, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.2 lb/day)+(17.1 lb/day))(fraction of total TEOR gas incinerated in this unit during testing))/(24 hr/day). [District Rule 2201] Federally Enforceable through Title V Permit

16. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/1000 cubic feet calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable through Title V Permit

17. Compliance with SOx emission rate for non-TEOR gas shall be demonstrated annually by gas sulfur analysis and mass balance calculations. [District Rule 2201] Federally Enforceable through Title V Permit

18. Permittee shall perform District-witnessed, or approved fuel gas sulfur analysis of non-TEOR gas combusted in the unit on an annual basis. [District Rule 2201] Federally Enforceable through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable through Title V Permit
21. If the NOx and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4326. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

25. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hmv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

28. Permittee shall maintain accurate records of annual sulfur analyses of and daily consumption of natural gas/TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

29. Permittee shall perform daily sulfur mass balance calculations from records required on vapor control system S-1547-714, and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

30. There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas; sulfur compounds emissions are limited by DELs on permit S-1547-714. [District Rule 2201] Federally Enforceable Through Title V Permit
31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

33. Formerly S-1511-244

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-831-12
EXPIRATION DATE: 05/31/2016
SECTION: SE35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM. (MOCO #809) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit

4. When the vapor gas stream is stopped or before starting, the unit may be disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed or reconnected. Permittee shall keep a written record of the date(s) when the unit is disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed or reconnected. [District Rule 1080] Federally Enforceable Through Title V Permit

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.6 and 4306, 6.3] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

43. Visible emissions shall not exceed 1 Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

48. Formerly S-1511-246

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-832-12

EXPIRATION DATE: 05/31/2016

SECTION: NE03  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C. E. NATCO GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN BURNER, FLUE GAS RECIRCULATION, AND OXYGEN ANALYZER/CONTROLLER. (#3-2C, BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on noncertified gaseous fuel and compliance with SOX emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44(c)(g) and (h) and 60.48(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Steam generator shall be equipped with an operational fuel gas volumetric flow meter and flue gas oxygen monitor/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

14. When TEOR gas is connected to this unit, steam generator shall be equipped with an operational volumetric TEOR gas flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall notify the District, in writing, at least 15 days prior to burning TEOR gas and when discontinuing the burning of TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Steam generator shall be equipped with a programmable logic controller (PLC). [District Rule 4305] Federally Enforceable Through Title V Permit

17. Only natural gas or a combination of natural gas and scrubbed non-condensible vapors shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Gas combusted in this steam generator shall not exceed 1,440 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

20. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SOX (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOX (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

21. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

22. Emission rates shall not exceed any of the following: PM10: 7.2 lb/day, SOX (as SO2): 2.9 lb/day, VOC: 4.3 lb/day, NOx (as NO2): 49.0 lb/day or 9461 lb/year, or CO: 43.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

23. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

31. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-832-12 | Jan 18 2012 12:15PM - GOUCH
32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

34. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas and TEOR waste gas, and such records shall be made readily available for District inspection upon request for a period of five years. [District NSR Rule, District Rule 1070] Federally Enforceable Through Title V Permit

35. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

37. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

38. Formerly S-1511-247
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-833-12  EXPIRATION DATE: 05/31/2016
SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C. E. NATCO GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LO-NOX BURNER
ASSEMBLY, FLUE GAS RECIRCULATION, AND OXYGEN ANALYZER/CONTROLLER (#2-5F) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct (ATC) for such modifications,
   except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V
   Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable
   Through Title V Permit

3. Operator shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant
   emissions unit. [District Rule 2080] Federally Enforceable Through Title V Permit

4. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing or
   monitoring requirements otherwise required by this permit. [District Rules 2080, 4305, 6.3 and 4306, 6.3] Federally
   Enforceable Through Title V Permit

5. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of
   recommencing operation of this unit. [District Rules 2080, 4305, 6.3 and 4306, 6.3] Federally Enforceable Through
   Title V Permit

6. This unit may not be operated after the applicable compliance schedule from Rule 4320, unless a valid ATC is
   implemented that approves the changes allowing this unit to comply with the applicable requirements of Rule 4320.
   [District Rule 2010] Federally Enforceable Through Title V Permit

7. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
   delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
   dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
   2520, 9.3.2] Federally Enforceable Through Title V Permit

8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
   annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
   Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
   every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
   using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
   performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
   compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
   annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
   Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228. [District Rules 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Steam generator shall be equipped with operational fuel gas and vapor recovery gas volumetric flow meters. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Annual heat input to steam generator shall not exceed 525.6 billion BTU hhv. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rule 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9461 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

33. Formerly S-1511-248

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain records of higher heating value and daily quantity of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rules 2520, 9.3.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dscf. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

16. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/24 hr/day. [District Rule 2201 and 4201, 3.0] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801; 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOx (as NO2): 51.8 lb/day or 7495 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
22. If NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

34. Formerly S-1511-249
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-835-12
SECTION: SE02  TOWNSHIP: 29S  RANGE: 21E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN GLE ULTRA LOW-NOX BURNER AND FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM S-1547-359, (#2-3J) (BELRIDGE)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District rule 2201] Federally Enforceable Through Title V Permit

7. Maximum vapor recovery gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall maintain records of higher heating value and daily quantity of natural gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The total fuel burned in this unit shall be less than 50% by volume PUC quality natural gas determined on a calendar month basis. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. A separate H2S is not required if results of Total Sulfur test demonstrates compliance with applicable H2S limits. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rule 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The PUC quality/produced natural gas line and CVR/waste gas line shall each be equipped with a volumetric fuel meter. Permittee shall maintain monthly records of the percentage by volume of PUC quality natural gas burned in the unit. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

14. Sulfur content of all fuel gas sources combined shall not exceed 5 gr-S/100 dsfc. [District Rule 4320, 5.4] Federally Enforceable Through Title V Permit

15. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emission rates shall not exceed the following: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201, and 4320, 5.4] Federally Enforceable Through Title V Permit

16. When natural gas and vapor recovery gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total vapor recovery gas gas incinerated in this unit during testing))/(24 hr/day). [District Rules 2201 and 4201, 3.0] Federally Enforceable Through Title V Permit

17. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

18. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed any of the following: PM10: 240.0 lb/day, VOC: 4.4 lb/day, NOX (as NO2): 49.9 lb/day or 7495 lb/year, or CO: 44.0 lb/day. [District Rules 2201] Federally Enforceable Through Title V Permit

20. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4; and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

26. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

32. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1; 4320, 6.1] Federally Enforceable Through Title V Permit

33. NOTE: There are no sulfur compounds daily emission limits (DEls) expressed on this permit for incineration of vapor recovery gas, sulfur compounds emissions are limited by DEls on permit S-1547-359.

34. Formerly S-1511-250
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

5. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When TEOR gas is connected to this unit, steam generator shall be equipped with an operational volumetric TEOR gas flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Permittee shall notify the District, in writing, at least 15 days prior to burning TEOR gas and when discontinuing the burning of TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcfd/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

13. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rule 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

14. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = {(7.0 lb/day)+(249.2 lb/day)(fraction of total TEOR gas incinerated in this unit during testing)}/(24 hr/day). [District Rules 2201 and 4201, 3.0] Federally Enforceable Through Title V Permit

15. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40.0 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

20. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468 or double GC for H2S and mercaptans performed in laboratory, fuel gas h2v - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

29. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

30. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Sample collection for compliance demonstration (source testing) shall be by an ARB certified testing laboratory and shall be District witnessed or authorized. [District Rule 1081] Federally Enforceable Through Title V Permit

33. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

34. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas. [District Rule 2201, District Rules 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

35. NOTE: There are no sulfur compounds daily emission limits (DELS) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

36. Formerly S-1511-253
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. Emissions from gaseous fired units shall not exceed 200 lb sulfur compounds/hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 4301, 5.2.1, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

5. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be equipped with operational vapor control system gas supply volumetric flow meter whenever unit is connected to the vapor control system gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Maximum TEOR gas flow rate for this unit shall not exceed 1,300 Mcf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. When fired exclusively on natural gas, except during startup, shutdown, and refractory curing, emissions from this unit shall not exceed either of the following limits: PM10: 0.005 lb/MMBtu or SOx (as SO2): 0.002 lb/MMBtu. [District Rules 2201; 4201, 3.0; and 4320, 5.4] Federally Enforceable Through Title V Permit

11. When natural gas and TEOR gas fired, except during startup, shutdown, and refractory curing, maximum PM10 emissions shall not exceed the lb/hr limit calculated as follows: PM10 = ((7.0 lb/day)+(249.2 lb/day)x(fraction of total TEOR gas incinerated in this unit during testing))/(24 hr/day). [District Rules 2201, 2520, 4201 and 4301] Federally Enforceable Through Title V Permit

12. Steam generator shall be operated at no greater than 1,466.7 MMBtu hhv/day heat input. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.2] Federally Enforceable Through Title V Permit

14. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods specified in this permit. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

15. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, the following test methods (or other approved methods listed in this permit) shall be used; H2S: ASTM D6228 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory; total sulfur: ASTM 1072, D3246, D4084 or D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40.0 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

17. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

18. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 5.7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
20. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 5.7] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permitted-otherwise monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.7] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

26. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

29. Only natural gas or a combination of natural gas and scrubbed non-condensible gas from sulfur scrubbing system(s) S-1547-359 shall be used as fuel in this steam generator. [District Rule 4320, 5.2] Federally Enforceable Through Title V Permit

30. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 4320] Federally Enforceable Through Title V Permit

31. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Sample collection for compliance demonstration (source testing) shall be by an ARB certified testing laboratory and shall be District witnessed or authorized. [District Rule 1081] Federally Enforceable Through Title V Permit

33. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

34. Permittee shall maintain accurate records of heating values (in Btu/scf) and daily consumption of natural gas/TEOR waste gas. [District Rule 4320, District Rules 1070 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

35. NOTE: There are no sulfur compounds daily emission limits (DELs) expressed on this permit for incineration of TEOR gas, sulfur compounds emissions are limited by DELs on permit S-1547-359.

36. Formerly S-1511-253

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-838-3

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
40 UNCONTROLLED CYCLICALLY STEAMED ENHANCED CRUDE OIL PILOT TESTING WELLS. - VARIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Any changes to the number of uncontrolled cyclically steamed oil production wells in the Western Heavy Oil Stationary Source shall require an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain current roster of all open vent cyclically steamed wells that have been steamed within the previous 5 years being operated under this permit & such roster shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Well roster shall include identification of all uncontrolled cyclic wells undergoing pilot testing. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Total number of uncontrolled cyclic wells undergoing pilot testing (exempt from control requirements pursuant to Rule 4401 section 4.2) shall not exceed 40. [District Rule 4401, 4.3] Federally Enforceable Through Title V Permit

5. Cyclic wells undergoing pilot testing, or exempt pursuant to Rule 4401 section 4.2, shall be located more than 1,000 feet from any existing well vent vapor recovery system operated by permittee. [District Rule 4401, 4.2.2] Federally Enforceable Through Title V Permit

6. Wells undergoing pilot testing shall not produce from a zone on that property that has been injected with steam during the preceding two years. [District Rule 4401, 4.2.1] Federally Enforceable Through Title V Permit

7. Pilot testing of wells for the purpose of determining the viability of developing a steam-enhanced production zone shall not exceed 180 days for each production zone. [District Rule 4401, 3.25] Federally Enforceable Through Title V Permit

8. Note: Formerly S-1511-258

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This sand basin shall not operate as a sump as defined in District Rule 4402. [District Rule 4402, 2.0] Federally Enforceable Through Title V Permit

2. Note: Formerly S-1511-273
PERMIT UNIT REQUIREMENTS

1. Water/VOC condensate from all liquid knockout vessels shall be piped to the production manifold or to an organic liquid storage tank that is served by the vapor recovery system. [District Rule 2201] Federally Enforceable Through Title V Permit

2. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank and the vapor recovery system shall not exceed 1.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. H2S concentration in tank vapor space shall not exceed 20,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Compliance source testing for H2S concentration of tank vapor space shall be conducted annually (or as approved by the District). [District Rule 2201] Federally Enforceable Through Title V Permit

6. H2S concentration in tank vapor space shall be determined by: GC/FPD or ASTM D-3246. [District Rule 1081] Federally Enforceable Through Title V Permit

7. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

8. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank’s maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of “California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588”, dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

11. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

12. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be constructed and maintained in a gas tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Tank gauging, chief hatches and/or sampling devices shall be equipped with gas tight covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. A facility operator, upon detection of a leaking component, shall affix to that component a waterproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on a quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Permittee shall maintain monthly records of true vapor pressure (TVP) of liquids stored and H2S concentration of tank vapor space. [District Rule 2201 and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

31. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
32. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. Note: Formerly S-1511-282.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-844-6
EXPIRATION DATE: 05/31/2016
SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W
EQUIPMENT DESCRIPTION:
126,000 GALLON 40' DIA. FIXED ROOF RECLAIM OIL TANK (F401A) VENTED TO VAPOR CONTROL LISTED ON S-1547-843. - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory “test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph”, as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank gauging, thief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit


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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-845-6       EXPIRATION DATE: 05/31/2016
SECTION: NE35    TOWNSHIP: 12N    RANGE: 24W

EQUIPMENT DESCRIPTION:
126,000 GALLON 30' DIA. FIXED ROOF PRODUCED WATER TANK (#F501B) SERVED BY A VAPOR RECOVERY SYSTEM (VRS SERVES PERMITS S-1547-843 TO '853, '882, '884, '1005 TO '1011, AND '1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permitee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-845-6   Jan 14 2012 12:16PM - DOUGHD
8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank gauging, thief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

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4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

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10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

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18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
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San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-847-6  
EXPIRATION DATE: 05/31/2016

SECTION: NE35  
TOWNSHIP: 12N  
RANGE: 24W

EQUIPMENT DESCRIPTION:
126,000 GAL 30' DIA. FIXED ROOF PRODUCED WATER TANK (#F201B) SERVED BY A VAPOR RECOVERY SYSTEM (VRS SERVES PERMITS S-1547-843 TO `-853, `-882, `-884, `-1005 TO `-1011, AND `-1025) - SOUTH MIDWAY

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-847-6 - Jan 16 2012 12:16PM - DOUGHD
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-848-6
SECTION: NE35 TOWNSHIP: 12N RANGE: 24W
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
126,000 GALLON 40' DIA. FIXED ROOF RECLAIM OIL TANK (#F401B) SERVED BY A VAPOR RECOVERY SYSTEM
(VRS SERVES PERMITS S-1547-843 TO '853, '882, '884, '1005 TO '1011, AND '1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank gauging, thief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit


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3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

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10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

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17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readable visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-850-6
SECTION: NE35   TOWNSHIP: 12N   RANGE: 24W
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
126,000 GALLON 30' DIA. FIXED ROOF REJECT OIL TANK (#F301B) SERVED BY A VAPOR RECOVERY SYSTEM
(VRS SERVES PERMITS S-1547-843 TO '853, '882, '884, '-1005 TO '1011, AND '-1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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23. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-851-6  EXPIRATION DATE: 05/31/2016

SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
210,000 GALLON, 40' DIA. FIXED ROOF LACT OIL TANK (F101A) SERVED BY A VAPOR RECOVERY SYSTEM (VRS SERVES PERMITS S-1547-843 TO '-853, '-882, '-884, '-1005 TO '-1011, AND '-1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permitee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppm, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppm above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank gauging, thief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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24. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit


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PERMIT UNIT REQUIREMENTS

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3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank gauging, thief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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24. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

26. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit


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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-853-6
EXPIRATION DATE: 05/31/2016
SECTION: NE35 TOWNSHIP: 12N RANGE: 24W
EQUIPMENT DESCRIPTION:
210,000 GALLON, 40' DIA. FIXED ROOF LACT OIL TANK (#F101C) SERVED BY A VAPOR RECOVERY SYSTEM (VRS SERVES PERMITS S-1547-843 TO '-853, '-882, '-884, '-1005 TO '-1011, AND '-1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VGC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

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14. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on a quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

27. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1511-292.
PERMIT UNIT REQUIREMENTS

1. Vapor control system compressor shall activate before the tank internal pressure exceeds relief valve settings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall be shared between units S-1547-854 through '863, and '990 through '992. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank and knockout vessels shall be designed and maintained to vent only to vapor control system, except during periods of tank or knockout vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Vapor control system shall vent only to sulfur removal system S-1547-714 during normal operations. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

6. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

8. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 71.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

11. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

13. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTC S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power curtailment. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 4.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 4.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 4.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
10. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit, which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
5-1547-4874 - Jan 15 2012 12:18PM - 00001D
19. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-858-6
EXPIRATION DATE: 05/31/2016

SECTION: SE19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
63,000 GALLON (1500 BBL) 22' DIA. CONE BOTTOM CONSTANT LEVEL CLARIFIER TANK VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-854 (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 5.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 5.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit
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11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.2 and 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 2.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

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14. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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20. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 4623, 2.0 & 4.4] Federally Enforceable Through Title V Permit

3. Tank cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 2.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

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8. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit
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11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-862-5  
EXPIRATION DATE: 05/31/2016  
SECTION: SE19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
65 HP WEMCO INDUCED GAS FLOATATION UNIT (OIL/WATER SEPARATOR) VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-854 (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Floatation unit shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Unit cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The vapor control system shall be operated at all times except during power outages and approved maintenance activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed 5.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

7. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

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13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-863-5
EXPIRATION DATE: 05/31/2016

SECTION: SE19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
65 HP WEMCO INDUCED GAS FLOTATION UNIT (OIL/WATER SEPARATOR) VENTED TO SHARED VAPOR
CONTROL SYSTEM LISTED ON S-1547-854 (LOST HILLS)

PERMIT UNIT REQUIREMENTS

1. Floatation unit shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854,
   except during periods of tank cleaning, vapor control system maintenance, and power outages. [District Rule 2201]
   Federally Enforceable Through Title V Permit

2. Unit cleaning shall not exceed 96 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The vapor control system shall be operated at all times except during power outages and approved maintenance
   activities not to exceed 240 cumulative hours per calendar year. Approved maintenance activities include vapor
   control system maintenance and cleaning and/or maintenance of the clarifier tank at the Lost Hills 2 Water Plant.
   [District Rule 2201] Federally Enforceable Through Title V Permit

4. Total VOC emissions rate from vapor control system components associated with this emission unit shall not exceed
   5.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During periods of vapor control system maintenance activities and power outages, vapor control system shall operate
   as a vapor balance system with operational pressure/vacuum relief valves preventing loss to the atmosphere except for
   fugitive leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission
   factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally
   Enforceable Through Title V Permit

7. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter
   from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule
   2201] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device or other roof appurtenance on a tank vented to the vapor recovery system shall
   be equipped with a cover, which shall be closed at all times except during gauging, sampling, tank or knockout vessel
   cleaning or when repairing or performing maintenance on a sampling or gauging device or other roof appurtenance.
   [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All piping, fittings, valves, gauging and sampling devices and roof appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

18. Note: Formerly S-1511-331.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-864-4

SECTION: SE19   TOWNSHIP: 26S   RANGE: 21E

EQUIPMENT DESCRIPTION:
86,026 GALLONS (46 FT X 50 FT X 10 FT MAXIMUM DEPTH) SAND BASIN (SB-101) - LOST HILLS

PERMIT UNIT REQUIREMENTS

1. Sand basin shall receive liquids and solids only from AERA's Heavy Oil Western Stationary Source. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The sand basin shall be covered by a tarp (sun screen) to aid in reducing potential air contaminant emissions except during maintenance and clean out operations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. During the clean out operation, the solids and liquids shall be removed from the sand basin in a timely manner to minimize VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emissions shall not exceed the following 13.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The sand basin surface area shall not exceed 2,300 sq.ft. [District Rule 2201] Federally Enforceable Through Title V Permit

6. This sand basin shall not operate as a sump as defined in District Rule 4402. [District Rule 4402, 2.0] Federally Enforceable Through Title V Permit

7. Note: Formerly S-1511-332

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vapor control system listed on this permit shall be connected to the following units: S-1547-865 through '-877, '-994, '-995, '-998 through '-1001, and '-1016 through '-1018. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall include compressors, recycle coolers, knockout vessels, and piping to DOGGR approved disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Vapor control efficiency shall be maintained at no less than 99% during normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. During periods of voluntary demand reduction power outages, vapor control system shall operate through the use of an operational pressure/vacuum vent and a vapor balanced system. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Uncondensed vapors from vapor compressor(s) shall only be piped to DOGGR approved gas disposal wells. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all DOGGR approved gas disposal wells connected to this vapor control system, and such listing shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Water and volatile organic compound (VOC) condensate from all liquid knockout drums shall be pumped to production system. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. Operator shall monitor vapor control system pressures on a quarterly basis to ensure that system pressure does not exceed pressure relief valve setting [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Vapor control system pressure transmitters shall be inspected and maintained in good operating conditions. The inspections shall be conducted on a quarterly basis. Replacing and repairing of each pressure transmitters shall not exceed one hour per day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

15. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) minimize the leak within 15 calendar days; and 2) if the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date of leak detection, and method of detection; 3) date and emission level of recheck after leak is repaired; 4) identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. Vapor control system efficiency shall be determined by a comparison of controlled emissions from all associated emissions units to those emissions which would occur from associated emissions units in the same product service without a vapor control system. Emissions shall be based on emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Tank pressure/vacuum valve shall be inspected on an annual basis. During the pv valve inspections, the pv valve can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of pv valve. [District Rule 2080] Federally Enforceable Through Title V Permit

26. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad aff a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \[ t = \frac{2.3 \ V/Q}{V = \text{tank volume (cubic feet)}, \text{and } Q = \text{flow rate to the vapor control system as determined using appropriate engineering calculations}} \]. [District Rule 2080] Federally Enforceable Through Title V Permit

30. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Steam cleaning shall be allowed only during December through March unless at a location where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

37. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 26.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

38. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

39. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

40. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Permittee shall maintain records of vapor control skid maintenance and voluntary power demand reduction situations, and such records shall be made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

42. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-866-5
EXPIRATION DATE: 05/31/2016

SECTION: NE14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
210,000 GALLON FIXED ROOF, CONE BOTTOM CLARIFIER TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a gas-tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) Use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppm whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3}{V/Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F., solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2261] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-869-6
EXPIRATION DATE: 05/31/2016
SECTION: NE14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
5000 BBL (210,000 GALLON) FIXED ROOF LACT TANK (F-105) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall: 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2800] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2800] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2800] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2800] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3}{V \cdot Q} \) where \( t = \text{time}, V = \text{tank volume (cubic feet)}, \) and \( Q = \text{flow rate to the vapor control system as determined using appropriate engineering calculations}. \) [District Rule 2800] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2800] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2800] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-870-5
EXPIRATION DATE: 05/31/2016
SECTION: NE14    TOWNSHIP: 31S    RANGE: 22E
EQUIPMENT DESCRIPTION:
210,000 GALLON FIXED ROOF LACT TANK (F205) SERVED BY VAPOR CONTROL SYSTEM S-1547-865 - NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-871-6
EXPIRATION DATE: 05/31/2016
SECTION: NE14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED ROOF RECLAIM OIL TANK VENTED TO VAPOUR CONTROL SYSTEM LISTED ON S-1547-865
- NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 °F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (Juiy - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

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18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3}{V/Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-873-5  
EXPIRATION DATE: 05/31/2016

SECTION: NE14  
TOWNSHIP: 31S  
RANGE: 22E

EQUIPMENT DESCRIPTION:  
210,000 GALLON FIXED ROOF RECLAIM OIL TANK (F204) VENTED TO VAPOUR CONTROL SYSTEM LISTED ON S- 
1547-865 - NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t = \) time, \( V = \) tank volume (cubic feet), and \( Q = \) flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ABR and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 4.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-874-6
EXPIRATION DATE: 05/31/2016

SECTION: NE14   TOWNSHIP: 31S   RANGE: 22E

EQUIPMENT DESCRIPTION:
10,500 GALLON FIXED ROOF PIT TANK VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - NORTH MIDWAY (REISSUED 11/16/05)

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

**PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE**

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( \tau = 2.3 V/Q \), where \( \tau \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Flotation unit shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Flotation unit shall be designed and maintained to vent only to vapor control system, except during periods of cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Flotation unit shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit, which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired prior to the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. This permit authorizes cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Prior to opening the vessel to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppm whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = \frac{2.3}{V/Q}$, where $t$ = time, $V$ = tank volume (cubic feet), and $Q =$ flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

17. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date cleaning was completed, the procedure used to vent vapors prior to opening, the method of cleaning used, and a description of internal and external repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


24. VOC fugitive emissions from this vessel shall not exceed 3.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of hydrocarbons in vessel vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit


27. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-877-4
SECTION: NE14  TOWNSHIP: 31S  RANGE: 22E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
INDUCED GAS FLOATATION UNIT WITH VAPOR CONTROL - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Flotation unit shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Flotation unit shall be designed and maintained to vent only to vapor control system, except during periods of cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Flotation unit shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. This permit authorizes cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Prior to opening the vessel to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

17. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 °F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date cleaning was completed, the procedure used to vent vapors prior to opening, the method of cleaning used, and a description of internal and external repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


24. VOC fugitive emissions from this vessel shall not exceed 4.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of hydrocarbons in vessel vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain with the permit accurate fugitive component counts for this vessel and the associated tank vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-879-8       EXPIRATION DATE: 05/31/2016
SECTION: NW11       TOWNSHIP: 29S       RANGE: 21E

EQUIPMENT DESCRIPTION:
SOLAR CENTAUR MODEL T4500, 3.2 MW, 61.5 MM BTU/HR HEAT INPUT, GAS-FIRED GAS TURBINE
ENGINE/GENERATOR WITH INLET AIR EVAPORATIVE COOLER AND H2O INJECTION, 38.7 MM BTU/HR DJCT
BURNER, AND S.C.R. WITH AMMONIA INJECTION. - BELRIDGE

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an
   Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title
   V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title
   V Permit

4. Upon recommencing operation, gas turbine engine shall be equipped with continuously recording fuel-to-water
   injection ratio monitor accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Gas turbine engine shall exhaust only to heat recovery steam generator and duct burner shall receive combustion air
   only from gas turbine exhaust. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Upon recommencing operation, duct burner fuel gas supply shall be equipped with injection pressure indicator.
   [District Rule 2201] Federally Enforceable Through Title V Permit

7. Upon recommencing operation, ammonia injection grid shall be equipped with operational ammonia flow meter and
   injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance
   with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer. [District
   Rule 2201] Federally Enforceable Through Title V Permit

10. Upon recommencing operation, gas temperature at SCR catalyst section inlet shall be monitored by operational
    temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates at duct burner exhaust shall not exceed any of the following: 23.0 lb/day PM10, 4.7 lb/day SOx (as
    SO2), 64.8 lb/day NOx (as NO2), 26.4 lb/day VOC, or 168.7 lb/day CO. [District Rule 2201] Federally Enforceable
    Through Title V Permit

12. No more than 1.4 MM scf/day of natural gas shall be consumed by gas turbine and no more than 0.9 MM scf/day of
    natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of
    two hours for startup and 2 hours for shutdown, per occurrence. [District Rule 4001, District Rule 2201] Federally
    Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

15. Upon recommencing operation, to demonstrate compliance with NO2 and CO emissions during days of startup/shutdown, daily emissions shall be calculated by a continuous emissions monitoring (CEM) system. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Daily records of NO2 and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit

17. Until January 1, 2011, except during periods of gas turbine engine startup/shutdown, emission rates (based on three-hour rolling average) shall not exceed any of the following: NOx (as NO2): 35 ppmvd @ 15% O2 (equates to 190.2 lb/day) or CO: 200 ppmvd @15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit

18. On and after January 1, 2011, emissions from this unit shall not exceed any of the following (based on three-hour rolling average): NOx (as NO2): 5 ppmv dry @ 15% O2 (equates to 27.2 lb/day) and CO: 200 ppmv dry @ 15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1.3 and 5.2] Federally Enforceable Through Title V Permit

19. Except during periods of startup/shutdown, gas turbine engine emission rates shall not exceed any of the following: NOx as NO2: 2.70 lb/hr, or CO: 7.03 lb/hr, PM10: 0.96 lb/hr, SOx as SO2: 0.20 lb/hr, or VOC: 1.10 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Maximum NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2 and SOX emissions shall not exceed 150 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit

21. Compliance with hourly NOx (2.70 lb/hr) and CO (7.03 lb/hr) emission limits shall be demonstrated annually by District-witnessed sample collection done by independent testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring. [District Rule 4001] Federally Enforceable Through Title V Permit

29. Upon recommencing operation, permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rule 1070]

30. Upon recommencing operation, permittee shall maintain accurate records of ammonia consumption. [District Rule 1070]
31. Permittee shall report the following emission exceedances to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Failure of catalyst to perform as required because of catalyst poisoning or fouling shall not recognized as a basis for a Rule 1100 enforcement exemption. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

34. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 4/25/02). [District Rule 4703, 6.1.3] Federally Enforceable Through Title V Permit

35. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 and 4703, 6.2.6] Federally Enforceable Through Title V Permit

36. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the auxiliary burner in operation and not in operation. An annual demonstration of compliance with the auxiliary burner in operation is not required in any year in which the auxiliary burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the auxiliary burner. An annual demonstration of compliance with the auxiliary burner not in operation is not required in any year in which the auxiliary burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the auxiliary burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

37. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

38. Upon recommencing operation, the permittee shall operate and maintain a continuous monitoring and recording system to measure oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

39. Upon recommencing operation, the continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5] Federally Enforceable Through Title V Permit

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

41. Upon recommencing operation, records of continuous emissions monitoring system shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of CEMs, and emission measurements. [District Rule 1080, 7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. When designated as a dormant emissions unit, the permittee shall not be required to perform monitoring requirements or submit CEMs reports for any calendar quarter in which the unit is not operational. Permittee shall submit a CEMs written report to the District for each calendar quarter in which the unit operated, due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rules 1080, 8.0, 2201, 2520, 9.6.1] Federally Enforceable Through Title V Permit

43. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

44. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEM. For planned CEM maintenance that will require the CEM system to be shut down more than 4 hours in a day or more than 12 hours in a calendar month, the operator shall notify the District at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

45. Upon recommencing operation, permittee shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

46. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 0.75 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 0.75 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

47. The following methods shall be used for testing required by this permit: NOx (ppmv) - EPA Method 7E, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B, Stack gas oxygen - EPA Method 3 or 3A, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081 and 4703] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-361
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-880-8
SECTION: NW11  TOWNSHIP: 29S  RANGE: 21E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
SOLAR CENTAUR MODEL T4500, 3.2 MW, 61.5 MMBTU/HR HEAT INPUT, GAS-FIRED GAS TURBINE (COGEN UNIT #B) ENGINE/GENERATOR WITH INLET AIR EVAPORATIVE COOLER AND H2O INJECTION, 38.7 MMBTU/HR DUCT BURNER, AND S.C.R. WITH AMMONIA INJECTION. - BELRIDGE

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Upon recommencing operation, gas turbine engine shall be equipped with continuously recording fuel-to-water injection ratio monitor accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Gas turbine engine shall exhaust only to heat recovery steam generator and duct burner shall receive combustion air only from gas turbine exhaust. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Upon recommencing operation, duct burner fuel gas supply shall be equipped with injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Upon recommencing operation, ammonia injection grid shall be equipped with operational ammonia flow meter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Upon recommencing operation, gas temperature at SCR catalyst section inlet shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates at duct burner exhaust shall not exceed any of the following: 23.0 lb/day PM10, 4.7 lb/day SOx (as SO2), 64.8 lb/day NOx (as NO2), 26.4 lb/day VOC, or 168.7 lb/day CO. [District Rule 2201] Federally Enforceable Through Title V Permit

12. No more than 1.4 MM scf/day of natural gas shall be consumed by gas turbine and no more than 0.9 MM scf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and 2 hours for shutdown, per occurrence. [District Rule 4001, District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
14. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. [District Rule 1070] Federally Enforceable Through Title V Permit

15. Upon recommencing operation, to demonstrate compliance with NO2 and CO emissions during days of startup/shutdown, daily emissions shall be calculated by a continuous emissions monitoring (CEM) system. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Daily records of NO2 and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit

17. Until January 1, 2011, except during periods of gas turbine engine startup/shutdown, emission rates (based on three-hour rolling average) shall not exceed any of the following: NOx (as NO2): 35 ppmvd @ 15% O2 (equates to 190.2 lb/day) or CO: 200 ppmvd @15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

18. On and after January 1, 2011, emissions from this unit shall not exceed any of the following (based on three-hour rolling average): NOx (as NO2): 5 ppmvd @ 15% O2 (equates to 27.2 lb/day) and CO: 200 ppmvd @ 15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

19. Except during periods of startup/shutdown, gas turbine engine emission rates shall not exceed any of the following: NOx as NO2: 2.70 lb/hr, CO: 7.03 lb/hr, PM10: 0.96 lb/hr, SOx as SO2: 0.20 lb/hr, or VOC: 1.10 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Maximum NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2 and SOX emissions shall not exceed 150 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit

21. Compliance with hourly NOx (2.70 lb/hr) and CO (7.03 lb/hr) emission limits shall be demonstrated annually by District-witnessed sample collection done by independent testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Records required by this permit shall be retained on site for a period of at least two years and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

29. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring. [District Rule 4001] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
30. Upon recommencing operation, permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of ammonia consumption. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

32. Permittee shall report the following emission exceedances to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Failure of catalyst to perform as required because of catalyst poisoning or fouling shall not recognized as a basis for a Rule 1100 enforcement exemption. [District Rule 2201] Federally Enforceable Through Title V Permit

34. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 4/25/02). [District Rule 4703, 6.1.5] Federally Enforceable Through Title V Permit

35. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During the days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 and 4703, 6.2.6] Federally Enforceable Through Title V Permit

36. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the auxiliary burner in operation and not in operation. An annual demonstration of compliance with the auxiliary burner in operation is not required in any year in which the auxiliary burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the auxiliary burner. An annual demonstration of compliance with the auxiliary burner not in operation is not required in any year in which the auxiliary burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the auxiliary burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

37. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

38. Upon recommencing operation, the permittee shall operate and maintain a continuous monitoring and recording system to measure oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

39. Upon recommencing operation, the continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5] Federally Enforceable Through Title V Permit

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

41. Upon recommencing operation, records of continuous emissions monitoring system shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of CEMs, and emission measurements. [District Rule 1080, 7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. When designated as a dormant emissions unit, the permittee shall not be required to perform monitoring requirements or submit CEMs reports for any calendar quarter in which the unit is not operational. Permittee shall submit a CEMs written report to the District for each calendar quarter in which the unit operated due on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0 and District Rule 2520, 9.6.1] Federally Enforceable Through Title V Permit

43. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

44. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEM. For planned CEM maintenance that will require the CEM system to be shut down more than 4 hours in a day or more than 12 hours in a calendar month, the operator shall notify the District at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

45. Upon recommencing operation, permittee shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

46. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 0.75 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 0.75 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

47. The following methods shall be used for testing required by this permit: NOx (ppmv) - EPA Method 7E, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B, Stack gas oxygen - EPA Method 3 or 3A, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081 and 4703, 6.4] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-362
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-881-8
SECTION: NW11  TOWNSHIP: 29S  RANGE: 21E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
SOLAR CENTAUR MODEL T4500, 3.2 MW, 61.5 MMBTU/HR HEAT INPUT, GAS-FIRED GAS TURBINE (COGEN UNIT #C) ENGINE/GENERATOR WITH INLET AIR EVAPORATIVE COOLER, H2O INJECTION, 38.7 MMBTU/HR DUCT BURNER, AND S.C.R. WITH AMMONIA INJECTION. - BELRIDGE

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Upon recommencing operation, gas turbine engine shall be equipped with continuously recording fuel-to-water injection ratio monitor accurate to within +/- 5%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Gas turbine engine shall exhaust only to heat recovery steam generator and duct burner shall receive combustion air only from gas turbine exhaust. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Upon recommencing operation, duct burner fuel gas supply shall be equipped with injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Upon recommencing operation, ammonia injection grid shall be equipped with operational ammonia flow meter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Upon recommencing operation, gas temperature at SCR catalyst section inlet shall be monitored by operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Emission rates at duct burner exhaust shall not exceed any of the following: 23.0 lb/day PM10, 4.7 lb/day SOx (as SO2), 64.8 lb/day NOx (as NO2), 26.4 lb/day VOC, or 168.7 lb/day CO. [District Rule 2201] Federally Enforceable Through Title V Permit

12. No more than 1.4 MM scf/day of natural gas shall be consumed by gas turbine and no more than 0.9 MM scf/day of natural gas shall be consumed by duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and 2 hours for shutdown, per occurrence. [District Rule 4001, District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. [District Rule 1070] Federally Enforceable Through Title V Permit

15. Upon recommencing operation, to demonstrate compliance with NO2 and CO emissions during days of startup/shutdown, daily emissions shall be calculated by a continuous emissions monitoring (CEM) system. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Daily records of NO2 and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit

17. Until January 1, 2011, except during periods of gas turbine engine startup/shutdown, emission rates (based on three-hour rolling average) shall not exceed any of the following: NOx (as NO2): 35 ppmvd @ 15% O2 (equates to 190.2 lb/day) or CO: 200 ppmvd @15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

18. On and after January 1, 2011, emissions from this unit shall not exceed any of the following (based on three-hour rolling average): NOx (as NO2): 5 ppmvd @ 15% O2 (equates to 27.2 lb/day) and CO: 200 ppmvd @ 15% O2 (equates to 661.8 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

19. Except during periods of startup/shutdown, gas turbine engine emission rates shall not exceed any of the following: NOx as NO2: 2.70 lb/hr, CO: 7.03 lb/hr, PM10: 0.96 lb/hr, SOx as SO2: 0.20 lb/hr, or VOC: 1.10 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Maximum NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2 and SOX emissions shall not exceed 150 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit

21. Compliance with hourly NOx (2.70 lb/hr) and CO (7.03 lb/hr) emission limits shall be demonstrated annually by District-witnessed sample collection done by independent testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Compliance with sulfur oxide emission limits shall be demonstrated by fuel gas sulfur analysis by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

29. Permittee shall comply in full with Rule 4001 (New Source Performance Standards) requirements, including notification, recordkeeping and monitoring. [District Rule 4001] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
30. Upon recommencing operation, permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of ammonia consumption. [District Rules 1070 and 2520, 9.4] Federally Enforceable Through Title V Permit

32. Permittee shall report the following emission exceedances to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Failure of catalyst to perform as required because of catalyst poisoning or fouling shall not recognized as a basis for a Rule 1100 enforcement exemption. [District Rule 2201] Federally Enforceable Through Title V Permit

34. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 4/25/02). [District Rule 4703, 6.1.5] Federally Enforceable Through Title V Permit

35. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520 and 4703, 6.2.6] Federally Enforceable Through Title V Permit

36. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the auxiliary burner in operation and not in operation. An annual demonstration of compliance with the auxiliary burner in operation is not required in any year in which the auxiliary burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the auxiliary burner. An annual demonstration of compliance with the auxiliary burner not in operation is not required in any year in which the auxiliary burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the auxiliary burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit

37. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

38. Upon recommencing operation, the permittee shall operate and maintain a continuous monitoring and recording system to measure oxides of nitrogen, carbon monoxide, and oxygen or carbon dioxide. [District Rule 1080, 4.0 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

39. Upon recommencing operation, the continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5] Federally Enforceable Through Title V Permit

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

41. Upon recommencing operation, records of continuous emissions monitoring system shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of CEMs, and emission measurements. [District Rule 1080, 7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. When designated as a dormant emissions unit, the permittee shall not be required to perform monitoring requirements or submit CEMs reports for any calendar quarter in which the unit is not operational. Permittee shall submit a CEMs written report to the District for each calendar quarter in which the unit operated on the 30th day following the end of the calendar quarter. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventative measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0 and District Rule 2520, 9.6.1] Federally Enforceable Through Title V Permit

43. Any emissions in excess of the limits imposed by conditions in this permit, as measured by the continuous monitoring equipment constitutes a violation of District Rules and Regulations and shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

44. Operator shall notify the District no later than eight hours after the detection of a breakdown of the CEM. For planned CEM maintenance that will require the CEM system to be shut down more than 4 hours in a day or more than 12 hours in a calendar month, the operator shall notify the District at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

45. Upon recommencing operation, permittee shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

46. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 0.75 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 0.75 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

47. The following methods shall be used for testing required by this permit: NOx (ppmv) - EPA Method 7E, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B, Stack gas oxygen - EPA Method 3 or 3A, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6 or fuel gas sulfur content analysis and EPA Method 19, Fuel gas sulfur content - ASTM D3246 or double GC for H2S and Mercaptans, Fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081 and 4703, 6.4] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-362

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Floatation unit shall be operated with a constant liquid level. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017 for Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline shall not exceed 14.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the floatation unit shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the floatation unit and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background from components other than those associated with the Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Floatation unit covers, inspection hatches, etc., shall be closed and maintained leak-free during normal operation except during periods of maintenance, repair, cleaning or power curtailment. [District Rule 2201] Federally Enforceable Through Title V Permit

10. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Operator shall determine the presence of VOC leaks by EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components associated with the Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on a quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-884-7
EXPIRATION DATE: 05/31/2016

SECTION: NE35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
84,000 GALLON SAND DUMP TANK (F601) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-843 AND PIPING TO SULFUR SCRUBBING SYSTEM S-1547-819. - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. During tank cleaning and maintenance, only one tank shall be vented to the atmosphere at any given time. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999), from the total number of components from this tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. H2S concentration in tank vapor space shall not exceed 20,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Compliance source testing for H2S concentration of tank vapor space shall be conducted annually (or as approved by the District). [District Rule 2201] Federally Enforceable Through Title V Permit

5. H2S concentration in tank vapor space shall be determined by: GC/FPD or ASTM D-3246. [District Rule 1081] Federally Enforceable Through Title V Permit

6. This tank shall only store, place, or hold an organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 2.0 and 4.4] Federally Enforceable Through Title V Permit

7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

8. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

9. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the storage tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

11. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

15. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Tank gauging, chief hatches and/or sampling devices shall be equipped with leak-free covers which shall remain closed at all times except during gauging and sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Tank pressure relief valve(s) shall be closed and leak-free during normal operation. Tank pressure relief valve(s) may open when the vapor collection system is shutdown for maintenance, involuntary power disruptions or your power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The tank pressure relief valve(s) shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on a quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Permittee shall maintain monthly records of true vapor pressure (TVP) of liquids stored and H2S concentration of tank vapor space. [District Rule 2201 and District Rule 4623] Federally Enforceable Through Title V Permit

30. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

31. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

33. Note: Formerly S-1511-376.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D3246, D 4084, or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following limits: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rule 2201; 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2; and 4801, 3.1] Federally Enforceable Through Title V Permit

12. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 1B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D5588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above any applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201 and District Rules 1070; 2520, 9.4.2; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

26. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

27. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

28. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
29. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

43. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
44. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

46. Formerly S-1511-379

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permitee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following limits: PM10: 0.005 lb/MMBtu; SOX (as SO2): 0.002 lb/MMBtu; VOC: 0.003 lb/MMBtu; NOX (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2. [District Rule 2201 and District Rules 2520, 9.1; 4201, 4301, 5.2; 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4101, 4102, 4301, 4405, 4406, and 4801] Federally Enforceable Through Title V Permit

12. Permitee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rule 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Measurement shall be made with the FGR system in the mode of operation (closed or open) in which it was used in the preceding 30 days. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, and 4306, 5.4] Federally Enforceable Through Title V Permit

15. If the NOX and/or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4, and 4306, 5.4] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4.2, and 4306, 5.4.2] Federally Enforceable Through Title V Permit

17. During the 36-month source testing interval the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306, 6.3] Federally Enforceable Through Title V Permit
18. All emissions measurements for NOx and CO shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test due date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, and 4306, 5.5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201 and District Rules 1070; 2520; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

26. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

27. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
28. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

29. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

42. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
43. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

44. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

45. Formerly S-1511-380

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-888-16 EXPIRATION DATE: 05/31/2016
SECTION: SW2 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
7500 BBL (315,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK F-4304 VENTED TO SHARED VAPOR CONTROL SYSTEM WITH COMPRESSOR(S), PUMP(S), COOLER(S) LIQUID KNOCKOUT(S), PRESSURE VESSEL(S), PIPING TO S-1547-359, AND PIPING TO THE SECTION 32 GAS PLANT (FACILITY S-1543)

PERMIT UNIT REQUIREMENTS

1. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
3. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
4. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
5. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V / Q, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
6. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
7. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
8. Prior to reintroducing crude oil/water to the tank, the vapor recovery system shall be operational. The tank may be filled with water to minimize the tank headspace prior to restarting the vapor recovery system. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit
9. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit

11. The following Dehy 2 permit units shall be tied into the shared vapor recovery system, TEOR S-1547-359: `-888 , -889, -890, -891, -892, -893, -894, -895, -896, -897, -898, -899, -902, -903, -904, -905, -906, -944, -945, -946, -947, -948, -949, -950, -951, -1014, -1015, -1019, -1116, -1117, -1119, -1123, and -1124. [District Rule 2201] Federally Enforceable Through Title V Permit

12. This vapor recovery system is authorized to receive recovered gas from the Anderson/Fitzgerald Dehydration facility including units S-1547-378, -379, -380, -383, -407, -408, -410, -411, -704, -1100, -1101, -1102, -1106, -1115, and -1121. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

14. VOC fugitive emissions from this tank and tank vapor control system including vapor control system trunk line prior to intertie with TEOR S-1547-359 shall not exceed 96.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain with the permit accurate fugitive component counts for tank and tank vapor control system, including vapor control system trunk line, according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201]

16. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

17. The operator shall keep accurate records of types, storage temperature and true vapor pressure of liquids stored. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 & 4623, 5.6.1] Federally Enforceable Through Title V Permit

19. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during interior tank cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

20. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

21. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.9 and 6.4.8] Federally Enforceable Through Title V Permit

22. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

23. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
24. If any of the tank components are found to be leaking, the operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

25. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7.9 (Table 3)] Federally Enforceable Through Title V Permit

26. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit or District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

27. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

28. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

29. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to the lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppmv in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

32. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. Note: Formerly S-1511-398.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

2. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oil pad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

3. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

4. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

5. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

6. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
7. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

8. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

9. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

10. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

11. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

12. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 220] Federally Enforceable Through Title V Permit

13. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 5.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Tank shall vent to vapor collection system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Vapor collection and vapor control systems shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

17. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

18. Any tank gauging or sampling device on a tank vented to the vapor collection system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

19. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

21. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

22. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

24. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

25. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September: 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

28. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor collection system compressor activation and shut off pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief setting(s). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

30. Note: Formerly S-1511-399.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-892-7  
EXPIRATION DATE: 05/31/2016

SECTION: SW02  
TOWNSHIP: 29S  
RANGE: 21E

EQUIPMENT DESCRIPTION:  
13.6 FT X 80 FT FREEWATER KNOCKOUT VESSEL D-4001 VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-888 - SOUTH BELRIDGE LEASE

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 8.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-409
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-893-7
EXPIRATION DATE: 05/31/2016
SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
13.6 FT X 80 FT FREEWATER KNOCKOUT VESSEL D-4002 VENTED TO SHARED VAPOR CONTROL SYSTEM
LISTED ON S-1547-888 - SOUTH BELRIDGE LEASE

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-
free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a
voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during
periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction
program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed)
downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and
control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through
Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or
transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed
7.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas
production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District
Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of
10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with
the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of
this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times
except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-410

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 6.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-411

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained gas-tight, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor control system shall not exceed 6.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-412

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 7.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-413
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-897-7  
EXPIRATION DATE: 05/31/2016

SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
13.6 FT X 80 FT FREEWATER KNOCKOUT VESSEL D-4006 VENTED TO SHARED VAPOR CONTROL SYSTEM
LISTED ON S-1547-888 - SOUTH BELRIDGE LEASE

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-
   free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a
   voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during
   periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction
   program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed)
   downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system
   shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or
   transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed
   5.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas
   production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District
   Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of
   10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the
   procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of
   this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times
    except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-414

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-898-7
EXPIRATION DATE: 05/31/2016
SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
23,500 GALLON CONDENSATE FWKO D-4701 VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-888 - SOUTH BELRIDGE LEASE

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 22.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-415
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 12.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count for the vapor recovery system and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-416

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 6.0 lb/day. [District Rule 220] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 220] Federally Enforceable Through Title V Permit

6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

8. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

9. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Note: Formerly S-1511-424 Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. An operational flow check valve shall be operational downstream of the IFS dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 12.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Except as otherwise provided in this permit, induced static floatation cell shall be maintained leak free. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

10. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Any induced static floatation cell gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
12. All piping, fittings, and valves directly affixed to the induced static floatation cell or associated with the induced static floatation cell vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the induced static floatation cell components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no induced static floatation cell components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

21. Note: Formerly S-1511-425
PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. An operational flow check valve shall be operational downstream of the IFS dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 11.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Except as otherwise provided in this permit, induced static floatation cell shall be maintained leak free. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

10. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Any induced static floatation cell gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. All piping, fittings, and valves directly affixed to the induced static floatation cell or associated with the induced static floatation cell vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the induced static floatation cell components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no induced static floatation cell components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recovery after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

21. Note: Formerly S-1511-426

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. An operational flow check valve shall be operational downstream of the IFS dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 13.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Except as otherwise provided in this permit, induced static flotation cell shall be maintained leak free. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

10. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Any induced static flotation cell gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
12. All piping, fittings, and valves directly affixed to the induced static floatation cell or associated with the induced static floatation cell vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the induced static floatation cell components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no induced static floatation cell components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform where access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

21. Note: Formerly S-1511-427

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District NSR Rule] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor collection and control system shall operate with a minimum efficiency of 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District NSR Rule] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 14.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee must maintain an accurate fugitive component count for the vapor recovery system and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Except as otherwise provided in this permit, FWKO shall be maintained leak free. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

10. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

11. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

22. Note: Formerly S-1511-431

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-907-3                        EXPIRATION DATE: 05/31/2016
SECTION: 35    TOWNSHIP: 12N    RANGE: 24W

EQUIPMENT DESCRIPTION:
138,900 GALLON SAND BASIN, LONGITUDINALLY DIVIDED INTO TWO CELLS, TOTAL LIQUID HOLDING AREA NOT
TO EXCEED 72 FT. BY 46 FT., WITH DEWATERING EQUIPMENT, AND MISC. ELECTRIC PUMPS, TOTAL RATING
LESS THAN 100 HP. - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Basin shall be used solely for separation of solids from liquids derived from Aera's Heavy Oil Western Stationary
   Source during normal operations. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Emissions shall not exceed the following: VOC - 19.9 lb/day. [District Rule 2201] Federally Enforceable Through
   Title V Permit

3. Sand basin shall not operate as a sump as defined by Rule 4402. [District Rules 2201 and 4402] Federally Enforceable
   Through Title V Permit

4. Note: Formerly S-1511-432

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The engine shall be operated with the timing retarded four degrees from the manufacturer's standard recommended timing. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Engine shall be equipped with turbocharger and air to air aftercooler. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Engine shall be equipped with positive crankcase ventilation (PCV) system or 90% efficient control device for visible crankcase emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This engine shall be operated only for required regulatory purposes and for start-up of cogeneration units S-1547-879, '880, '881, '148, '149, and '151 during utility power interruptions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. If engine exhibits visible emissions greater than 1/2 Ringelmann aggregating more than three minutes in any one hour, District witnessed compliance testing of particulate matter emissions shall be conducted by independent testing laboratory. [District Rule 2201 & District Rule 1081, 4.0] Federally Enforceable Through Title V Permit

6. Official test results and field data of each compliance test shall be submitted to the District within 60 days after collection. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit

7. This permit unit is approved to operate at only the following locations: SW/4 Sec. 2, T29S, R21E and SE/4 Sec. 32, T28S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

9. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit

10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit

11. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-912-4                         EXPIRATION DATE: 05/31/2016
SECTION: SW26  TOWNSHIP: 31S  RANGE: 22E
EQUIPMENT DESCRIPTION:
69 WELL TEOR OPERATION INCLUDING WELL VENT VAPOR COLLECTION SYSTEM

PERMIT UNIT REQUIREMENTS

1. Number of TEOR wells served by vapor control system shall not exceed 69 wells. [District Rule 2201] Federally Enforceable Through Title V Permit

2. VOC emission rate from steam enhanced wells shall not exceed 2.21 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. All condensate from each liquid knock-out drum shall be pumped only to production system. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Compliance with Rule 4401 may be achieved by injection of vapor control system gas into Department of Oil, Gas, and Geothermal Resources (DOGGR) approved injection wells. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain a current listing of all steam enhanced wells and DOGGR approved gas injection wells connected to this system and shall make this list readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

6. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

9. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

13. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

15. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

16. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

17. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

19. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

20. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
21. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

22. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

23. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

24. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.1 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

27. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

28. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

30. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

31. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

32. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

33. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

35. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

36. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

37. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

41. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

43. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

44. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
45. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

46. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

47. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

48. Note: Formerly S-1511-445
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-913-6

SECTION: 14 TOWNSHIP: 31S RANGE: 22E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
ABOVE GROUND GASOLINE STORAGE & DISPENSING SYSTEM INCLUDING ONE 1000 GALLON TANK SERVED BY
PHASE I VAPOR RECOVERY SYSTEM AND 1 NOZZLE SERVED BY BALANCE PHASE II VAPOR RECOVERY
SYSTEM (G-70-116-F) - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which
shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering
the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon
capacity or more shall not be allowed unless the container is equipped with an ARB certified Phase I system and
maintained and operated according to manufacturers specifications. [District Rule 4621, 3.4 and 5.2] Federally
Enforceable Through Title V Permit

2. Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at
least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere.
[District Rule 4622, 5.1] Federally Enforceable Through Title V Permit

3. Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.1.1]
Federally Enforceable Through Title V Permit

4. Each aboveground storage tank shall be equipped with a pressure-vacuum valve set to within 10% of the maximum
allowable working pressure of the tank. No gasoline shall be placed, stored, or held in any above-ground tank of 250
gallon capacity or more unless it is so equipped. [District Rule 4621, 5.1.2; 4623, 5.4] Federally Enforceable Through
Title V Permit

5. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are
displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.7] Federally
Enforceable Through Title V Permit

6. No person shall top off a motor vehicle fuel tank. [District Rule 4622, 5.6] Federally Enforceable Through Title V
Permit

7. No owner or operator shall tamper with, or permit tampering with, the ARB certified vapor recovery system in a
manner that would impair the operation or effectiveness of the system. [District Rule 4622, 5.9] Federally Enforceable
Through Title V Permit

8. No gasoline shall be transferred into vehicle fuel tanks if the vapor recovery system contains any defect listed in
Section 94006 of Title 17 of the California Code of Regulations or in Section 5.4 of SJVUAPCD Rule 4622 (as
amended February 17, 1994) until the defect has been repaired, replaced, or adjusted as necessary to correct the defect,
and the District has reinspected the system or has authorized its use pending reinspection. [District Rule 4622, 5.4]
Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has been notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use. A log containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 2520, 9.4.2 and 4622, 5.4] Federally Enforceable Through Title V Permit

10. Each ARB certified vapor recovery system shall be tested within 60 days of major modification or installation, except as otherwise allowed by this permit. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. [District Rule 4621, 6.2] Federally Enforceable Through Title V Permit

11. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B at least once every 12 months. [District Rule 4622] Federally Enforceable Through Title V Permit

12. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

13. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

14. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

15. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621, 6.2 and 4622, 6.4] Federally Enforceable Through Title V Permit

16. The District shall be notified within 24 hours of the facility’s pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The vapor recovery systems and their components shall be operated and maintained in accordance with the State certification requirements. [District Rules 4621, 5.2 and 4622, 5.1] Federally Enforceable Through Title V Permit

18. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4.2 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer’s specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit

19. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 25,000 gallons - one day per week; B) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O&M manual. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

21. The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule 4622, 5.2] Federally Enforceable Through Title V Permit

22. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 2520, 9.4.2 and 4622, 3.6 & 5.1] Federally Enforceable Through Title V Permit

23. Each operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. The operator shall maintain monthly gasoline throughput records. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

25. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records required by this permit shall be retained on-site for a period of at least five years, and shall be made available for inspection upon request. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

27. The requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. Note: Formerly S-1511-452.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-914-6
SECTON: 35  TOWNSHIP: 12N  RANGE: 24W

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
ABOVE GROUND GASOLINE STORAGE & DISPENSING SYSTEM INCLUDING ONE 2000 GALLON TANK SERVED BY PHASE I VAPOR RECOVERY SYSTEM AND 1 NOZZLE SERVED BY PHASE II VAPOR RECOVERY SYSTEM (G-70-116-F) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with an ARB certified Phase 1 system and maintained and operated according to manufacturers specifications. [District Rule 4621, 3.4 and 5.2] Federally Enforceable Through Title V Permit

2. Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere. [District Rule 4622, 5.1] Federally Enforceable Through Title V Permit

3. Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit

4. Each aboveground storage tank shall be equipped with a pressure-vacuum valve set to within 10% of the maximum allowable working pressure of the tank. No gasoline shall be placed, stored, or held in any above-ground tank of 250 gallon capacity or more unless it is so equipped. [District Rule 4621, 5.1.2; 4623, 5.4] Federally Enforceable Through Title V Permit

5. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.7] Federally Enforceable Through Title V Permit

6. No person shall top off a motor vehicle fuel tank. [District Rule 4622, 5.6] Federally Enforceable Through Title V Permit

7. No owner or operator shall tamper with, or permit tampering with, the ARB certified vapor recovery system in a manner that would impair the operation or effectiveness of the system. [District Rule 4622, 5.9] Federally Enforceable Through Title V Permit

8. No gasoline shall be transferred into vehicle fuel tanks if the vapor recovery system contains any defect listed in Section 94006 of Title 17 of the California Code of Regulations or in Section 5.4 of SJVUAPCD Rule 4622 (as amended February 17, 1994) until the defect has been repaired, replaced, or adjusted as necessary to correct the defect, and the District has reinspected the system or has authorized its use pending reinspection. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use. A log containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 2520, 9.4.2 and 4622, 5.4] Federally Enforceable Through Title V Permit

10. Each ARB certified vapor recovery system shall be tested within 60 days of major modification or installation, except as otherwise allowed by this permit. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. [District Rule 4621, 6.2] Federally Enforceable Through Title V Permit

11. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B at least once every 12 months. [District Rule 4622] Federally Enforceable Through Title V Permit

12. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

13. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

14. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

15. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621, 6.2 and 4622, 6.4] Federally Enforceable Through Title V Permit

16. The District shall be notified within 24 hours of the facility’s pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The vapor recovery systems and their components shall be operated and maintained in accordance with the State certification requirements. [District Rules 4621, 5.2 and 4622, 5.1] Federally Enforceable Through Title V Permit

18. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4.2 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit

19. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 25,000 gallons - one day per week; B) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O&M manual. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit
20. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

21. The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule 4622, 5.2] Federally Enforceable Through Title V Permit

22. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 2520, 9.4.2 and 4622, 3.6 & 5.1] Federally Enforceable Through Title V Permit

23. Each operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. The operator shall maintain monthly gasoline throughput records. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

25. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records required by this permit shall be retained on-site for a period of at least five years, and shall be made available for inspection upon request. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

27. The requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-949-10          EXPIRATION DATE: 05/31/2016
SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E
EQUIPMENT DESCRIPTION:
5000 BBL (210,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK F-4301 VENTED TO SHARED VAPOR
CONTROL SYSTEM LISTED ON S-1547-888 (DEHY 2)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent to vapor control system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 10.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

7. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during tank interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppmv in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit
19. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

26. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

27. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

28. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

29. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Note: Formerly S-1511-509.
PERMIT UNIT: S-1547-950-10  EXPIRATION DATE: 05/31/2016

SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
5000 BBL (210,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK F-4302 VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-888 (DEHY 2)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent to vapor control system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 5.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
7. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during tank interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 “Exempt Halogenated VOCs in Gases September 12, 1990”. [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

26. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

27. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

28. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

29. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Note: Formerly S-1511-510.
PERMIT UNIT REQUIREMENTS

1. Tank shall vent to vapor control system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 13.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

7. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during tank interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppmv in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990”. [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit
19. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

26. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

27. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

28. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

29. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. Note: Formerly S-1511-511.
PERMIT UNIT: S-1547-964-2

EXPIRATION DATE: 05/31/2016

SECTION: SE23  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
42,000 GALLON FIXED ROOF CRUDE OIL SHIPPING TANK #TA007762. - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. Note: Formerly S-1511-551

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-990-10
SECTION: 19   TOWNSHIP: 26S   RANGE: 21E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
HEATER TREATER AND A HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO VAPOUR CONTROL SYSTEM (LOST HILLS) WITH A PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0 MMBTU/HR OR LESS)

PERMIT UNIT REQUIREMENTS

1. Vessel shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

2. During periods of vapor control system maintenance and power outages, vapor control system shall operate with a minimum efficiency of 90%, achieved through the use of an operation pressure/vacuum vent and vapor balance system. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Total fugitive VOC emission rate from vapor recovery components associated with this emission unit shall not exceed 11.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Any vessel gauging or sampling device or other appurtenance in vapor service on a vessel vented to the vapor recovery system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, vessel cleaning or when repairing or performing maintenance on a sampling or gauging device or other appurtenance. [District Rule 2201] Federally Enforceable Through Title V Permit

8. All piping, fittings, valves, gauging and sampling devices and appurtenances comprising the vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Except for periods of tank or vessel cleaning, vapor control system maintenance or power outages, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Permitee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Formerly S-1511-621.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-991-9

SECTION: 19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
HEATER TREATER AND HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO
VAPOR CONTROL SYSTEM (LOST HILLS) WITH A PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0
MMBTU/HR OR LESS)

PERMIT UNIT REQUIREMENTS

1. Vessel shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during
periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally
Enforceable Through Title V Permit

2. During periods of vapor control system maintenance and power outages, vapor control system shall operate with a
minimum efficiency of 90%, achieved through the use of an operation pressure/vacuum vent and vapor balance
system. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The operator shall maintain all records of required monitoring data and support information for inspection at any time
for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission
factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally
Enforceable Through Title V Permit

5. Total fugitive VOC emission rate from vapor recovery components associated with this emission unit shall not exceed
11.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter
from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule
2201] Federally Enforceable Through Title V Permit

7. Any vessel gauging or sampling device or other appurtenance in vapor service on a vessel vented to the vapor recovery
system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, vessel
cleaning or when repairing or performing maintenance on a sampling or gauging device or other appurtenance.
[District Rule 2201] Federally Enforceable Through Title V Permit

8. All piping, fittings, valves, gauging and sampling devices and appurtenances comprising the vapor control system shall
be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with
methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak
during an annual inspection, the inspection frequency for that component type shall be changed from annual to
quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the
inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet
above ground when access is required from the ground or over 6 feet away from a platform when access is required
from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be
inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and
repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
S-1547-991-9 - Jan 10 2012 12:18PM - GOUGH
9. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Except for periods of tank or vessel cleaning, vapor control system maintenance or power outages, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Formerly S-1511-622.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-992-7  EXPIRATION DATE: 05/31/2016
SECTION: 19  TOWNSHIP: 26S  RANGE: 21E

EQUIPMENT DESCRIPTION:
HEATER TREATER WITH A HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO
VAPOR CONTROL SYSTEM (LOST HILLS) WITH A PERMIT EXEMPT BURNER (NATURAL GAS-FIRED, 5.0
MMBTU/HR OR LESS)

PERMIT UNIT REQUIREMENTS

1. Vessel shall be designed and maintained to vent only to vapor control system listed on PTO S-1547-854, except during
   periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally
   Enforceable Through Title V Permit

2. During periods of vapor control system maintenance and power outages, vapor control system shall operate with a
   minimum efficiency of 90%, achieved through the use of an operation pressure/vacuum vent and vapor balance
   system. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Total fugitive VOC emission rate from vapor recovery components associated with this emission unit shall not exceed
   12.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. A leak is defined as an emissions rate exceeding 10,000 ppm of methane measured at a distance of one centimeter
   from potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule
   2201] Federally Enforceable Through Title V Permit

5. Any vessel gauging or sampling device or other appurtenance in vapor service on a vessel vented to the vapor recovery
   system shall be equipped with a cover, which shall be closed at all times except during gauging, sampling, vessel
   cleaning or when repairing or performing maintenance on a sampling or gauging device or other appurtenance.
   [District Rule 2201] Federally Enforceable Through Title V Permit

6. All piping, fittings, valves, gauging and sampling devices and appurtenances comprising the vapor control system shall
   be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with
   methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak
   during an annual inspection, the inspection frequency for that component type shall be changed from annual to
   quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the
   inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet
   above ground when access is required from the ground or over 6 feet away from a platform when access is required
   from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be
   inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and
   repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible
   tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is
   repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2]
   Federally Enforceable Through Title V Permit

8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is
   repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Except for periods of tank or vessel cleaning, vapor control system maintenance or power outages, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Permittee shall maintain accurate records of vapor control system maintenance, power outages and records of hours of tank and knockout vessel cleaning. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup, shutdown and refractory curing shall not exceed any of the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.004 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

8. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit
9. Emission rates shall not exceed any of the following: PM10: 1.2 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 20.2 lb/day or 2649 lb/year, or CO: 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be tested fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. Heater treater and appurtenances shall be maintained leak-free (as defined in Rule 4623) except during periods of unit maintenance or cleaning, vapor control system maintenance, and power curtailment. [District Rule 2201] Federally Enforceable Through Title V Permit

18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. Formerly S-1511-627.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-995-9

EXPIRATION DATE: 05/31/2016

SECTION: NW14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
5 MMBTU/HR GAS-FIRED HEATER TREATER WITH ONE 5 MMBTU/HR JOHN ZINK MODEL SZ12.2-G-50 BURNER
AND FGR AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - (NORTH MIDWAY UNIT B-101A -
ALBERTA SHALE LEASE)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil.
   [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865.
   [District Rule 2201] Federally Enforceable Through Title V Permit

3. A non-resettable, totaling mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the
   unit shall be installed, utilized and maintained. [District Rules 2201 and 4307, 5.5] Federally Enforceable Through
   Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
   content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
   annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
   Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
   every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
   using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
   performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
   compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
   annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
   Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
   sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using
   ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in
   the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
   fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
   ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MMBtu,
   SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or
   CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 4405, 5.1] Federally Enforceable Through
   Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 4.3 lb/day, or CO: 4.4 lb/day. [District Rule 2201 and 4307] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.4.2, and 4307] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 2520, 9.4.2 and 4307] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 5.5 and 6.1] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4307] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
18. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

19. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4307] Federally Enforceable Through Title V Permit

29. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081 and 4307] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201and 4307, 6.2] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

36. Note: Formerly S-1511-628

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District  

PERMIT UNIT: S-1547-998-13  
EXPIRATION DATE: 05/31/2016

SECTION: NE14  
TOWNSHIP: 31S  
RANGE: 22E

EQUIPMENT DESCRIPTION:
5.0 MMBTU/HR GAS-FIRED HEATER TREATER WITH ONE 5.0 MMBTU/HR MAXON MODEL M-PAKT BURNER AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 (NORTH MIDWAY UNIT B-101B - ALBERTA SHALE LEASE)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Unit shall be equipped with a non-resettable fuel flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MBBTu, SOx (as SO2): 0.002 lb/MBBTu, VOC: 0.003 lb/MBBTu, NOx (as NO2): 0.036 lb/MBBTu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MBBTu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBTu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBTu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: PM10: 3.4 lb/day, SOx (as SO2): 0.5 lb/day, VOC: 0.7 lb/day, NOx (as NO2): 33.6 lb/day or 3154 lb/year, or CO: 8.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit


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PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Unit shall be equipped with a non-resettable fuel flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup, shutdown and refractory curing shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 4405, 5.1] Federally Enforceable Through Title V Permit
9. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 33.6 lb/day or 1577 lb/year, or CO: 4.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hours each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307] Federally Enforceable Through Title V Permit

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15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

18. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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27. Permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-632.

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PERMIT UNIT REQUIREMENTS

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2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Unit shall be equipped with a non-resettable fuel flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.00285 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emission rates shall not exceed any of the following: PM10: 1.9 lb/day, SOx (as SO2): 0.5 lb/day, NOx (as NO2): 24.0 lb/day or 3154 lb/year, or CO: 20.2 lb/day or 3241 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

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21. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-644
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1001-13
EXPIRATION DATE: 05/31/2016

SECTION: NE14 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
GAS-FIRED HEATER TREATER WITH 5.0 MMBTU/HR MAXON MODEL M-PAKT BURNER AND SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-865 (NORTH MIDWAY UNIT B-201C - FINLEY LEASE)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Unit shall be equipped with a non-resettable fuel flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.014 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 0.2 lb/day, VOC: 0.4 lb/day, NOx (as NO2): 33.6 lb/day or 3154 lb/year, or CO: 8.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

18. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
20. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-634.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1005-12
EXPIRATION DATE: 05/31/2016

SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
5.0 MM BTU/HR NATURAL GAS-FIRED HEATER TREATER (#D201A) WITH ONE 5.0 MM BTU/HR MAXON MODEL M-PAKT BURNER AND HEAT CROSSOVER LINE TO UNFIRED HEATER TREATER SECTION WITH VAPOR CONTROL SYSTEM LISTED ON S-1547-843 (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Compliance with sulfur emission limits or fuel sulfur content limits may be demonstrated by firing the unit only on PUC or FERC regulated natural gas, or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtus by the maximum heat input rating of the unit, or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.21] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtus or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtus or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed either of the following: PM10: 0.008 lb/MMBtus or SOx (SO2): 0.002 lb/MMBtus. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or NO2 - 140 pounds per hour. [District Rule 4301] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC
Location: HEAVY OIL WESTERN STATIONARY SOURCE, KERN COUNTY, CA
10. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, NOx (as NO2): 24.0 lb/day and 1,577 lb/year, or CO: 20.2 lb/day and 1,621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The owner/operator shall monitor, at least once a month, the operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair, or maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. The owner/operator shall maintain records to verify that the required monitoring of the operational characteristics, and tune-ups or portable NOx analyzing has been performed. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

25. Tune-up records shall include: 1) date of tune-up, 2) name of technician performing tune-up, and 3) reason that they are qualified. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

26. Portable analyzer records shall include: 1) date of emissions analyzing, 2) results of emissions analyzing, 3) name of technician performing analyzing, 4) make and model of analyzer, 5) date of last calibration of the analyzer, and 6) a description of any adjustments made to the unit's operating parameters for the purposes of assuring compliance. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307] Federally Enforceable Through Title V Permit

28. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

30. Formerly S-1511-640.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1006-12
SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
5 MM BTU/HR GAS-FIRED HEATER TREATER WITH ONE MAXON MODEL M-PAKT NATURAL GAS FIRED BURNER
AND HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION AND A FLUID TREATMENT
CHAMBER SERVED BY A VAPOR RECOVERY SYSTEM (VRS SERVES PERMITS S-1547-843 TO '-853, '-882, '-883, '-
884, '-1005 TO '-1011, AND '-1025) - SOUTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil.
   [District Rule 2201] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
   each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content
   limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
   annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
   Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
   every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
   using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
   performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
   compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
   annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally
   Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
   sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using
   ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in
   the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
   fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
   ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction
   program, the fluid treatment chamber shall be connected to a vapor recovery system consisting of a closed vent system
   that collects all VOCs from the fluid treatment chamber and a VOC control device. The vapor recovery system shall
   be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control
   devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in
   Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup shutdown and refractory curing shall not exceed any of the following: PM10:
   0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO:
   0.037 lb/MMBtu or 50 ppmv @ 3% O2, and VOC: 0.0055 lb/MMBtu. [District Rules 2201 and 4307, 5.1] Federally
   Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates during startup shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.1 and 4801, 3.1] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

21. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair or maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

23. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

34. Formerly S-1511-641
PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

13. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

17. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

18. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1008-11
EXPIRATION DATE: 05/31/2016

SECTION: NE35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
HEATER TREATER WITH ONE 5.0 MMBTU/HR MAXON MODEL M-PAKT NATURAL GAS FIRED BURNER WITH HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-843. (#D201D) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

18. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-643.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1009-11
EXPIRATION DATE: 05/31/2016

SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
HEATER TREATER WITH ONE 5.0 MMBTU/HR MAXON MODEL M-PAKT NATURAL GAS-FIRED BURNER WITH HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-843. (#D201E) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4391, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.0 lb/day, SOx (as SO2): 0.2 lb/day, NOx (as NO2): 24.0 lb/day or 3154 lb/year, or CO: 20.2 lb/day or 3241 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

18. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any uncertified fuel and record specific type of uncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-644.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1010-11
EXPIRATION DATE: 05/31/2016
SECTION: NE35  TOWNSHIP: 12N  RANGE: 24W

EQUIPMENT DESCRIPTION:
HEATER TREATER WITH ONE 5.0 MMBTU/HR MAXON MODEL M-PAKT NATURAL GAS-FIRED BURNER WITH HEAT CROSSOVER LINE TO THE UNFIRED HEATER TREATER SECTION, VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-843. (#D201F) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.21] Federally Enforceable Through Title V Permit

7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates, except during startup and shutdown shall not exceed any of the following: PM10: 0.008 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 0.037 lb/MMBtu or 50 ppmv @ 3% O2. [District Rules 2201 and 4307, 5.1] Federally Enforceable Through Title V Permit

9. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following: PM10: 1.9 lb/day, SOx (as SO2): 0.5 lb/day, NOx (as NO2): 24.0 lb/day or 1577 lb/year, or CO: 20.2 lb/day or 1621 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of start-up and shutdown shall not exceed one hour each per occurrence. [District Rule 4307, 5.4] Federally Enforceable Through Title V Permit

12. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The permittee shall monitor, at least once per month, the unit's operational characteristics recommended by the manufacturer and approved by the APCO. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

14. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. In lieu of tuning the unit, the operator shall monitor the emissions, at least monthly, with a portable NOx analyzer and adjust the unit's operating parameters accordingly to assure compliance with the emission limits of this rule. [District Rule 4307, 5.5] Federally Enforceable Through Title V Permit

15. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

18. Vessel covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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27. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

29. Formerly S-1511-645.

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PERMIT UNIT REQUIREMENTS

1. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluid treatment chamber of heater treater shall be connected to vapor control system listed on PTO S-1547-843. [District Rule 2201] Federally Enforceable Through Title V Permit

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8. Emission rates during startup and shutdown shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. If the unit is tuned for compliance, the permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

15. If NOx emissions are monitored for compliance, the permittee shall maintain records of: (1) the date and time of the NOx measurements, (2) the O2 concentration in percent and the measured NOx concentration corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, (5) a description of any corrective action taken to maintain the emissions within the acceptable range, and (6) a record of the operational characteristics monitored. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4307. Notwithstanding the requirements above and per Section 5.6.3 of Rule 4307, for units with a cyclical firing period that routinely interrupts fuel flow as part of its normal operation, source testing may commence sooner than specified above and continue through its normal cyclical firing period. [District Rule 4307, 5.6] Federally Enforceable Through Title V Permit

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19. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of duration of each start-up and shutdown that exceed one hour per occurrence, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4307, 6.1] Federally Enforceable Through Title V Permit

28. Note: Formerly S-1511-646.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall vent to vapor control system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 8.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

7. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during tank interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit
19. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

26. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

27. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

28. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

29. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit.

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit.

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Note: Formerly S-1511-659

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1015-10
EXPIRATION DATE: 05/31/2016

SECTION: SW02  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
7500 BBL (315,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK F-4307 VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-888 (DEHY 2)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent to vapor control system listed in S-1547-888, except during periods of tank interior cleaning. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Drain valves shall only drain into covered containers which shall be emptied into tanks with vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 5.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

7. All tank seams, joints, piping, valves and fittings shall be constructed and maintained in a leak-free condition except during tank interior cleaning. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Upon detection of any leaking components (having a gas leak > 10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

12. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

13. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

14. Any component found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. The control efficiency of the VOC construction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under-reported or over-reported. Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990". [District Rule 4623, 6.4.6, 6.4.7] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When storing organic liquid that has a TVP that is 0.5 psia or greater, the permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
19. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

20. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

21. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

22. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

23. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

24. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

25. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

26. When storing an organic liquid that has a TVP that is 1.5 psia or higher, during sludge removal the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

27. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

28. When storing an organic liquid that has a TVP that is 1.5 psia or higher, permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

29. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Note: Formerly S-1511-660
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1016-5
EXPIRATION DATE: 05/31/2016

SECTION: NE14  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
12 FT. DIA. X 60 FT. LONG FREE WATER KNOCKOUT VESSEL VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. FWKO vessel shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO vessel shall be designed and maintained to vent only to vapor control system, except during periods of cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

3. FWKO vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround, and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. This permit authorizes cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) Vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

17. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date cleaning was completed, the procedure used to vent vapors prior to opening, the method of cleaning used, and a description of internal and external repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


24. VOC fugitive emissions from this vessel shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of hydrocarbons in collected FWKO vessel vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain with the permit accurate fugitive component counts for this vessel and the associated tank vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
PERMIT UNIT: S-1547-1017-5  EXPIRATION DATE: 05/31/2016
SECTION: NE14  TOWNSHIP: 31S  RANGE: 22E
EQUIPMENT DESCRIPTION:
12 FT. DIA. X 60 FT. LONG FREE WATER KNOCKOUT VESSEL VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1547-865 - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. FWKO vessel shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO vessel shall be designed and maintained to vent only to vapor control system, except during periods of cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

3. FWKO vessel shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recatch after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. This permit authorizes cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = \frac{2.3 \ V}{Q}$, where $t$ = time, $V$ = tank volume (cubic feet), and $Q$ = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

17. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date cleaning was completed, the procedure used to vent vapors prior to opening, the method of cleaning used, and a description of internal and external repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
21. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


24. VOC fugitive emissions from this vessel shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of hydrocarbons in collected FWKO vessel vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall maintain with the permit accurate fugitive component counts for this vessel and the associated tank vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1018-6                     EXPIRATION DATE: 05/31/2016

SECTION: NE14   TOWNSHIP: 31S   RANGE: 22E

EQUIPMENT DESCRIPTION:
210,000 GALLON OIL PROCESSING TANK VENTED TO VAPOR CONTROL LISTED ON S-1547-865 - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank shall be vented only to vapor control system described on permit S-1547-865. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be designed and maintained to vent only to vapor control system, except during the period of tank cleaning, inspections, and maintenance allowed by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) less than 0.50 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gauge hatches, sampling ports, pressure relief valves, vapor control system components, etc., shall be closed and leak-free except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

6. All seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the varec inspections, the varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Permittee shall conduct cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 2 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

19. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date cleaning was completed, the procedure used to vent vapors prior to opening, the method of cleaning used, and a description of internal and external repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Permittee shall maintain accurate records of the TVP of liquids stored and such records shall be made readily available for District inspection at any time for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit


26. VOC fugitive emissions from the tank and gas components serving the tank battery shall not exceed 3.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

27. VOC content of hydrocarbons in tank vapors (VOC/THC) shall not exceed 25%. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall maintain with the permit accurate fugitive component counts for this tank and the vapor control system and resulting emissions calculated using Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995. [District Rule 2201] Federally Enforceable Through Title V Permit

29. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the ISF dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During periods of vapor control system maintenance and power outages, vapor control system shall operate with a minimum efficiency of 90%, achieved through the use of an operational pressure/vacuum vent and a vapor balanced system. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 17.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any induced static flotation cell gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the induced static floatation cell or associated with the induced static floatation cell vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the induced static floatation cell components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no induced static floatation cell components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control system is functional and is operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. Note: Formerly S-1511-671

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1022-10 EXPIRATION DATE: 05/31/2016
SECTION: 32 TOWNSHIP: 28S RANGE: 21E

EQUIPMENT DESCRIPTION:
GASOLINE DISPENSING OPERATION WITH ONE 4,000 GALLON ABOVEGROUND STORAGE TANK SERVED BY TWO-POINT PHASE I VAPOR RECOVERY SYSTEM, AND 4 FUELING POINTS WITH 4 GASOLINE DISPENSING NOZZLES SERVED BY ASSIST PHASE II VAPOR RECOVERY SYSTEM (G-70-139) - BELRIDGE

PERMIT UNIT REQUIREMENTS

1. Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with an ARB certified Phase I system and maintained and operated according to manufacturers specifications. [District Rule 4621, 3.4 and 5.2] Federally Enforceable Through Title V Permit

2. Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere. [District Rule 4622, 5.1] Federally Enforceable Through Title V Permit

3. Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit

4. Each aboveground storage tank shall be equipped with a pressure-vacuum valve set to within 10% of the maximum allowable working pressure of the tank. No gasoline shall be placed, stored, or held in any above-ground tank of 250 gallon capacity or more unless it is so equipped. [District Rule 4621, 5.1.2; 4623, 5.4] Federally Enforceable Through Title V Permit

5. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.7] Federally Enforceable Through Title V Permit

6. No person shall top off a motor vehicle fuel tank. [District Rule 4622, 5.6] Federally Enforceable Through Title V Permit

7. No owner or operator shall tamper with, or permit tampering with, the ARB certified vapor recovery system in a manner that would impair the operation or effectiveness of the system. [District Rule 4622, 5.9] Federally Enforceable Through Title V Permit

8. No gasoline shall be transferred into vehicle fuel tanks if the vapor recovery system contains any defect listed in Section 94006 of Title 17 of the California Code of Regulations or in Section 5.4 of SJVUAPCD Rule 4622 (as amended February 17, 1994) until the defect has been repaired, replaced, or adjusted as necessary to correct the defect, and the District has reinspected the system or has authorized its use pending reinspection. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has been notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use. A log containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 2520, 9.4.2 and 4622, 5.4] Federally Enforceable Through Title V Permit

10. The facility gasoline throughput shall not exceed 4,000 gallons per day and 300,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each ARB certified vapor recovery system shall be tested within 60 days of major modification or installation, except as otherwise allowed by this permit. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. [District Rule 4621, 6.2] Federally Enforceable Through Title V Permit

12. The permittee shall perform the "Minimum Maintenance Requirements" for the Hirt VCS-200 from CARB Executive Order G-70-139, and shall record all maintenance activities in a maintenance log. [District Rule 4622] Federally Enforceable Through Title V Permit

13. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

14. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

15. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

16. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621, 6.2 and 4622, 6.4] Federally Enforceable Through Title V Permit

17. The District shall be notified within 24 hours of the facility's pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The vapor recovery systems and their components shall be operated and maintained in accordance with the State certification requirements. [District Rules 4621, 5.2 and 4622, 5.1] Federally Enforceable Through Title V Permit

19. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4.2 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit

20. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 25,000 gallons - one day per week; B) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O&M manual. [District Rule 4622, 5.3 and 6.3] Federally Enforceable Through Title V Permit
21. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

22. The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule 4622, 5.2] Federally Enforceable Through Title V Permit

23. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 2520, 9.4.2 and 4622, 3.6 & 5.1] Federally Enforceable Through Title V Permit

24. Each operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The operator shall maintain monthly gasoline throughput records. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

26. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All records required by this permit shall be retained on-site for a period of at least five years, and shall be made available for inspection upon request. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

28. The requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1511-675
PERMIT UNIT REQUIREMENTS

1. Rule 2201 unit shall be operated with a constant liquid level. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fugitive VOC emissions rate, calculated using Table 2-4 Oil and Gas Production Operations Average Emissions factors from the EPA Protocol for Equipment Leak Emissions Estimates EPA-453/R-95-017 for Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline shall not exceed 14.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Except during periods of maintenance, involuntary power curtailments and the voluntary power demand reduction program, the floatation unit shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the floatation unit and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in a leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99%, by weight, as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background from components other than those associated with the Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The vapor collection system can be shutdown for maintenance or involuntary power curtailments for a combined total of no more than 24 hours per calendar quarter. Involuntary power curtailments shall be defined as power disruptions that are caused solely by the power distributor and shall also include any time necessary to switch back and forth between power providers. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The vapor collection system can be shutdown as a part of the voluntary power demand reduction program for no more than 5 hours per day, 5 days per year between the dates of May 1 and October 31. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The vapor control system shall operate with a minimum control efficiency of 90% when the vapor collection system is shutdown down for maintenance, involuntary power curtailments or the voluntary power demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

8. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Floatation unit covers, inspection hatches, etc., shall be closed and maintained leak-free during normal operation except during periods of maintenance, repair, cleaning or power curtailment. [District Rule 2201] Federally Enforceable Through Title V Permit

10. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Operator shall determine the presence of VOC leaks by EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components associated with the Wemco, new 10" diameter main vapor collection pipeline, and four 4" diameter vapor recovery lines (one on each cell) connecting the Wemco to the main vapor collection pipeline which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 99% efficient as measured by EPA Method 18 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 99% control efficiency as measured by EPA Method 18 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shutdown for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shutdown. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on a quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of number and type of components installed and calculated fugitive emissions. Permittee shall update such records when new components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of the amount of time the vapor collection system is shutdown for maintenance, involuntary power curtailments and the voluntary power demand reduction program and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
Permit Unit: S-1547-1027-5
Expiration Date: 05/31/2016

Section: 35  Township: 12N  Range: 24W

Equipment Description:
21,000 Gallon Hydrochloric Acid Storage Tank #206A with Fume Scrubber Shared with S-1547-1103 - South Midway

Permit Unit Requirements

1. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
2. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. Fresh scrubber liquid (water) shall be added as necessary to maintain at least manufacture's listed scrubbing efficiency. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Spent packed water column water shall be disposed of in a manner preventing acid emissions. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Tank shall store only hydrochloric acid (HCl). [District Rule 4102]
6. Tank shall vent all HCl fumes to operational fume scrubber at all times during filling. [District Rule 4102]
7. Deliveries shall not exceed 15,000 gallons of hydrochloric acid per day. [District Rule 4102]
8. Tank throughput shall not exceed 1,800,000 gallons per year of HCl. [District Rule 4102]
9. Permittee personnel shall be present during all acid deliveries to verify storage tank has sufficient outage to receive the volume of acid to be delivered, that all acid unloading connections are secured, and that the unloading air pressure does not exceed 25 psig. [District Rule 4102]
10. Permittee shall keep records of maintenance inspections, acid delivery dates and volumes delivered. All records shall be retained for a minimum of five years. Records shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
11. Formerly permit unit #S-1511-680.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1030-10                      EXPIRATION DATE: 05/31/2016
SECTION: SE35          TOWNSHIP: 12N            RANGE: 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW NOX BURNER
WITH FLUE GAS RECIRCULATION (FGR) (MOCO #805) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas
delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all
dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule
2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis,
each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur
content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-
annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District
Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once
every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units
using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans
performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating
compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however,
annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally
Enforceable Through Title V Permit

4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel
sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using
ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in
the laboratory. [District Rule 2520, 9.4.2; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each
fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with
ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through
Title V Permit

6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR
60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with operational natural gas volumetric flow meters . [District Rule 2201] Federally
Enforceable Through Title V Permit

8. Natural gas fuel sulfur content shall not exceed 0.75 gr S/100 scf. [District Rule 2201; PSD SJ 89-01] Federally
Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 4.5 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

20. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hvy - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

23. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

25. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

26. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

27. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
28. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

29. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

30. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

31. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

32. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr) and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

33. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

34. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit

35. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

36. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

37. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

38. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

39. Visible emissions shall not exceed a Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

40. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

41. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
42. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

43. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

44. NOTE: Formerly S-1511-378
PERMIT UNIT: S-1547-1033-3  EXPIRATION DATE: 05/31/2016

SECTION: NE 03  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
200 HP OLYMPIAN DIESEL IC ENGINE WITH TURBOCHARGER AND CRANKCASE VENTILATION CONTROL SYSTEM POWERING AN EMERGENCY ELECTRICAL GENERATOR (COMPUTER BACKUP "GREEN ROOM")

PERMIT UNIT REQUIREMENTS

1. NOx emissions shall not exceed 6.14 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device capable of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit

4. This engine shall be monitored, operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. Examples of monitoring and maintenance are: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or check other operational characteristics as recommended by the manufacturer or supplier. [District Rule 4702] Federally Enforceable Through Title V Permit

5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit

9. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.47 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.4] Federally Enforceable Through Title V Permit

8. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.0013 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.014 lb/MMBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 2.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 7665 lb/year, or CO: 45.0 lb/day [District Rules 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 432, 5.8] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1035-10
PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

3. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

4. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2.1 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

5. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

6. Natural gas fuel sulfur content shall not exceed 0.47 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320, 3.7 and 5.4] Federally Enforceable Through Title V Permit

8. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the test methods (or other approved methods listed in this permit) H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MBtu, SOx (as SO2): 0.0013 lb/MBtu, VOC: 0.003 lb/MBtu, NOx (as NO2): 0.014 lb/MBtu or 12 ppmv @ 3% O2, or CO: 0.030 lb/MBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

10. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 2.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 7665 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

12. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 432, 5.8] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. For each steam generator site downstream of H2S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1038-2  
EXPIRATION DATE: 05/31/2016

SECTION: NE26  TOWNSHIP: 29S  RANGE: 21E

EQUIPMENT DESCRIPTION:
5000 BBL (210,000 GALLON) FIXED ROOF CRUDE OIL PRODUCTION TANK - FITZGERALD LEASE.

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. Note: Formerly S-1129-170

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1043-2
EXPIRATION DATE: 05/31/2016
SECTION: NE34 TOWNSHIP: 29S RANGE: 21E
EQUIPMENT DESCRIPTION:
1000 BBL (42,000 GALLON) FIXED ROOF CRUDE OIL PRODUCTION TANK #CY34WT1.

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. Note: Formerly S-1129-167

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1044-2
EXPIRATION DATE: 05/31/2016
SECTION: NE34  TOWNSHIP: 29S  RANGE: 21E
EQUIPMENT DESCRIPTION:
1000 BBL (42,000 GALLON) FIXED ROOF CRUDE OIL PRODUCTION TANK #1GM58.

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. Note: Formerly S-1129-168

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1045-2
EXPIRATION DATE: 05/31/2016
SECTION: NE34  TOWNSHIP: 29S  RANGE: 21E
EQUIPMENT DESCRIPTION:
1000 BBL (42,000 GALLON) FIXED ROOF CRUDE OIL PRODUCTION TANK.

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

5. Note: Formerly S-1129-169

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1059-6  EXPIRATION DATE: 05/31/2016
SECTION: NW13  TOWNSHIP: 26S  RANGE: 20E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR GAS-FIRED NATIONAL STEAM GENERATOR (HSG #180; DIS# 20616-81) WITH NORTH AMERICAN BURNER (TAYLOR LEASE)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. No modification to this unit shall be performed without an ATC for that modification except as described in condition 3 below. [District Rule 2010] Federally Enforceable Through Title V Permit

5. The fuel supply line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of a compliant DEU. [District Rule 2080] Federally Enforceable Through Title V Permit

7. A source test to demonstrate compliance with the indicated emissions limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2080, 4305, 6.3; 4305, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

8. In accordance with the provisions of Rule 4305 Section 7.4, amended 12/19/96, this unit may only be operated after the permittee has submitted an application for Authority to Construct for any modification necessary to comply with Rule 4305. [District Rule 2010 and 4305]

9. All combustion equipment (burner, combustion air controls, etc.) shall be operated and maintained as intended by manufacturer. [District Rule 2080] Federally Enforceable Through Title V Permit

10. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2080] Federally Enforceable Through Title V Permit

11. When gas firing, compliance source testing for fuel gas sulfur content shall be conducted annually (or as approved by the District) within 60 days prior to the permit anniversary. [District Rule 1070]

12. The sample collection shall be conducted under conditions (fuel quality, firing rate, waste gas incineration, air fuel ratio, etc.) expected to result in emissions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

13. The operational conditions during compliance testing may be imposed as permit requirements. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period. [District Rule 2201] Federally Enforceable Through Title V Permit

20. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Emissions assessed to the SLC for this unit are PM10: 9.6 lb/day, SOx (as SO2): 1.1 lb/day, NOx (as NO2): 54.0 lb/day, VOC: 2.9 lb/day, and CO: 6.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Emission rates shall not exceed PM10: 0.010 lb/MBtu, SOx (as SO2): 0.001 lb/MBtu, NOx (as NO2): 0.036 lb/MMBtu, VOC: 0.003 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Emission rates from all permit units in the Western Heavy Oil Source SLC Compliance Plan shall not exceed PM10: 545.6 lb/day, SOx (as SO2): 6,237.6 lb/day, NOx (as NO2): 1,708.6 lb/day, VOC: 59.8 lb/day, and CO: 282.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

24. This permit shall comply with NOx and sulfur compound emission requirements as specified in Rules 4405 and 4406. [District Rules 4405 and 4406] Federally Enforceable Through Title V Permit

25. For any day monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrate, etc) or, if such data is not available, for the four days of operation preceding the breakdown. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rule 1081] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1060-6
SECTION: 13 TOWNSHIP: 26S RANGE: 20E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION WITH SELECTIVE CATALYTIC REDUCTION (SCR) - LOST HILLS UNIT #4

PERMIT UNIT REQUIREMENTS

1. Cogeneration unit shall include Allison Model 501-KB-5 48.7 MMBTU/hr gas-fired engine, synchronous electrical generator, unfired 22.5 MMBTU/hr steam generator, and inlet air evaporative cooler. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Turbine lube oil tank and generator gearbox lube oil tank shall vent only through fiber bed filter system or other District-approved control Device. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
4. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334(a) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
5. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Gas turbine engine water injection rate shall be maintained at a water-to-fuel ratio documented to result in compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with continuously recording water to fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201 & 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
8. If ammonia injection system is inoperative for more than 1 hour, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Maximum emission rate of volatile organic compounds (VOC’s) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance testing of lube oil vent and gearbox vent shall be required if visible emissions from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit
13. The ammonia (NH3) emissions from the exhaust of the SCR system serving this gas turbine shall not exceed 20 ppmvd. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall maintain accurate records of ammonia consumption. [District Rule 1070 and 4703, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
15. Gas temperature at SCR catalyst section inlet shall be continuously monitored by operational temperature indicator. Inlet gas temperature to catalyst bed shall be maintained within range recommended by catalyst manufacturer and determined by performance tests. [40 CFR 60.334(a) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

16. Permittee shall install, operate and maintain in calibration a system which continuously measures and records ammonia injection flow rate and pressure. Ammonia injection flow rate and pressure shall be operated within the range recommended by SCR manufacturer and determined by performance tests such that the turbine maintains 95% or greater control efficiency or complies with the applicable NOx emission concentration limit. [40 CFR 60.334(a) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

17. Except during startup, shutdown, and reduced load periods, any one-hour period during which the average ammonia injection flow rate, as measured by the continuous monitoring system, falls outside the flow rate range as determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average ammonia injection flow rate, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

18. Fuel gas sulfur content shall not exceed 19.5 ppmv as hydrogen sulfide (H2S) or 1.1 gr/100 scf as total fuel sulfur. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 1.1 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 1.1 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Except during periods of startup, shutdown, and shakedown, emissions rates (three hour rolling average) shall not exceed any of the following: NOx (as NO2): 5 ppmv dry @ 15% O2, CO: 41 ppmv dry @ 15% O2. [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

21. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [40 CFR Subpart A 60.2 and District Rule 4703, 5.3] Federally Enforceable Through Title V Permit

22. The duration of reduced load shall not exceed a time period of one hour per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit

23. Emissions shall not exceed any of the following limits: NOx (as NO2): 150.7 lb/day, CO: 107.5 lb/day, PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day or VOC: 39.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Maximum NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) & 60.333(a)] Federally Enforceable Through Title V Permit

26. Source testing to measure exhaust gas NOX, CO, and NH3 concentrations and, if applicable, Selective Catalytic Reduction (SCR) control efficiency shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). Performance testing shall be conducted under conditions representative of normal operation. [40 CFR 60.335(b), District Rules 2520, 9.4.2 and 4703, 6.3] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or 20 or ARB Method 100, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or 20 or ARB Method 100, fuel gas sulfur content - ASTM D1072, D4468, or D3246 or double GC for H2S and mercaptans, fuel gas HHV and LHV - ASTM D3598-91, D1826-88 or D1945-81, Ammonia slip - BAAQMD method ST-1B. [40 CFR 60.335(b) and District Rules 1081 & 4703, 6.4] Federally Enforceable Through Title V Permit

28. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

29. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

30. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once every month in which a source test is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the previous calendar month. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

31. If the NOx or CO concentrations corrected to 15% O2 as measured by the portable analyzer or the NH3 concentration, as measured by Draeger tubes or a District approved equivalent method, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

32. Failure of catalyst to perform as required because of catalyst poisoning or fouling shall not be recognized as a basis for a Rule 1100 enforcement exemption. [District Rule 1070 and 4703, 6.2] Federally Enforceable Through Title V Permit

33. All NOx, CO, O2 and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

34. Ammonia emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

35. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

36. Permitee shall report the following emission exceedance to the District: emission rates of NOx & CO on a three-hour rolling average and NSPS emission rate on one hour average. [District Rule 1070, 2201 and 4703, 6.2] Federally Enforceable Through Title V Permit
37. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. This information may be recorded electronically. Daily entries in the operating log are not required for periods of non-operation. [District Rules 2520, 9.4.2 & 4703, 6.2] Federally Enforceable Through Title V Permit

38. Permittee shall maintain accurate records of all maintenance activities, periodic inspections, and repairs of SCR unit, water and NH3 injection systems, and their associated controller and instrumentation units. [District Rules 1070 and 4703, 6.2] Federally Enforceable Through Title V Permit

39. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

40. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080, 2201, & 4703, 6.2.4] Federally Enforceable Through Title V Permit

41. Note: Formerly S-1129-50.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1061-6 EXPIRATION DATE: 05/31/2016

SECTION: 13 TOWNSHIP: 26S RANGE: 20E

EQUIPMENT DESCRIPTION:
3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION WITH SELECTIVE CATALYTIC REDUCTION (SCR) - LOST HILLS UNIT #5

PERMIT UNIT REQUIREMENTS

1. Cogeneration unit shall include Allison Model 501-KB-5 48.7 MMBTU/hr gas-fired engine, synchronous electrical generator, unfired 22.5 MMBTU/hr steam generator, and inlet air evaporative cooler. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Turbine lube oil tank and generator gearbox lube oil tank shall vent only through fiber bed filter system or other District-approved control Device. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

4. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Gas turbine engine water injection rate shall be no less than 0.8/1.0 water to fuel ratio by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Gas turbine engine shall be equipped with continuously recording water to fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201 & 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

7. If water injection system is inoperative, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Compliance testing of lube oil vent and gearbox vent shall be required if visible emissions from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit

12. Fuel gas sulfur content shall not exceed 19.5 ppmv as hydrogen sulfide (H2S) or 1.1 gr/100 scf as total fuel sulfur. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Except during periods of startup and shutdown, emissions rates shall not exceed any of the following: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr or VOC: 1.65 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except during periods of startup and shutdown, emissions rates (three hour rolling average) shall not exceed any of the following limits: NOx (as NO2): 35 ppmvd @ 15% O2 (equates to 150.6 lb/day) or CO: 200 ppmvd @15% O2 (equates to 524.0 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
15. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [40 CFR Subpart A 60.2] Federally Enforceable Through Title V Permit

16. Emissions shall not exceed any of the following limits: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day or VOC: 39.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emissions shall not exceed any of the following limits: NOx (as NO2): 150.6 lb/day or CO: 107.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Daily records of NO2 and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1070, District Rule 2201] Federally Enforceable Through Title V Permit

19. NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) & 60.333(a)] Federally Enforceable Through Title V Permit

20. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 1.1 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 1.1 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually within 30 days before or after the required annual source test date. Performance testing shall be conducted under conditions representative of normal operation. [40 CFR 60.335(b), District Rule 4703, 6.3 & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and fuel gas sulfur content - ASTM D1071, D4468 or ASTM D3246 or double GC for H2S and mercaptans, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081 & 4703, 6.2] Federally Enforceable Through Title V Permit

23. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

25. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334(a) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

26. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. [District Rules 2520, 9.4.2 & 4703, 6.2.4] Federally Enforceable Through Title V Permit

27. The owner or operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080 & 4703, 6.2.4] Federally Enforceable Through Title V Permit

28. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
29. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

30. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

31. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 4/25/02). [District Rule 4703, 6.1.5] Federally Enforceable Through Title V Permit

32. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

33. Note: Formerly S-1129-51.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1062-6
EXPIRATION DATE: 05/31/2016

SECTION: 13 TOWNSHIP: 26S RANGE: 20E

EQUIPMENT DESCRIPTION:
3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION WITH SELECTIVE CATALYTIC REDUCTION (SCR) LOST HILLS UNIT #6

PERMIT UNIT REQUIREMENTS

1. Cogeneration unit shall include Allison Model 501-KB-5 48.7 MMBTU/hr gas-fired engine, synchronous electrical generator, unfired 22.5 MMBTU/hr steam generator, and inlet air evaporative cooler. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Turbine lube oil tank and generator gearbox lube oil tank shall vent only through fiber bed filter system or other District-approved control Device. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Gas turbine engine shall be equipped with continuously recording fuel gas flowrate monitor. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

4. Gas turbine engine shall be equipped with water injection system for NOx control. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Gas turbine engine water injection rate shall be no less than 0.8/1.0 water to fuel ratio by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Gas turbine engine shall be equipped with continuously recording water to fuel injection rate monitoring system accurate to within +/- 5%. [District Rule 2201 & 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

7. If water injection system is inoperative, gas turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Evaporative cooler shall use only fresh and filtered water. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Compliance testing of lube oil vent and gearbox vent shall be required if visible emissions from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District Rule 1081] Federally Enforceable Through Title V Permit

12. Fuel gas sulfur content shall not exceed 19.5 ppmv as hydrogen sulfide (H2S) or 1.1 gr/100 scf as total fuel sulfur. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Except during periods of startup and shutdown, emissions rates shall not exceed any of the following limits: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr or VOC: 1.65 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. Except during periods of startup and shutdown, emissions rates (three hour rolling average) shall not exceed any of the following limits: NOx (as NO2): 35 ppmvd @ 15% O2 (equates to 150.6 lb/day) or CO: 200 ppmvd @15% O2 (equates to 524.0 lb/day). [District Rule 4703, 5.1 and 5.2] Federally Enforceable Through Title V Permit

15. Startup and shutdown of the gas turbine, as defined in this permit and in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours for startup and two hours for shutdown, per occurrence. Emission concentrations subsequent to this startup period shall not exceed the limits specified in this permit except during shutdown. [40 CFR Subpart A 60.2] Federally Enforceable Through Title V Permit

16. Emissions shall not exceed any of the following limits: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day or VOC: 39.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emissions shall not exceed any of the following limits: NOx (as NO2): 150.6 lb/day or CO: 107.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Daily records of NO2 and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rules 1070 & 2201] Federally Enforceable Through Title V Permit

19. NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [40 CFR 60.332(a)(2) & 60.333(a)] Federally Enforceable Through Title V Permit

20. Fuel sulfur content for a fuel source shall be measured weekly. Test reports of measured fuel sulfur content shall be maintained. If measured sulfur content is less than 1.1 gr/100 scf for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If any semi-annual testing show fuel sulfur content exceeds 1.1 gr/100 scf, weekly testing shall resume and exceedance shall be reported to APCO. [40 CFR 60.334(b)(c) & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. Performance testing to measure exhaust gas NOx and CO concentrations shall be conducted annually within 30 days before or after the required annual source test date. Performance testing shall be conducted under conditions representative of normal operation. [40 CFR 60.335(b), District Rule 4703, 6.3 & District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Methods 7E or 20, or ARB Method 100; CO (ppmv) - EPA Method 10 or 10B, or ARB Method 100; stack gas oxygen - EPA Method 3, 3A or 20, or ARB Method 100; and fuel gas sulfur content - ASTM D1072, D4468 or ASTM D3246 or double GC for H2S and mercaptans, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [40 CFR 60.335(b) and District Rules 1081 & 4703, 6.2] Federally Enforceable Through Title V Permit

23. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

24. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit

25. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334(a) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

26. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption for normal operation and for the startup/shutdown periods. [District Rules 2520, 9.4.2 & 4703, 6.2.4] Federally Enforceable Through Title V Permit

27. The operator shall maintain all records for a period of five years from the date of entry and shall make such records available to the APCO upon request. [District Rules 1080 & 4703, 6.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
28. Daily records of NOx and CO emission calculations during days of startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

30. Permittee shall comply in full with Rule 4001 (New Source Performance Standards, 40 CFR 60 Subpart GG) requirements, including notification, recordkeeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit

31. The owner or operator of any existing stationary gas turbine system (unless exempted because all turbines are under ownership or control and have NOx and CO emissions limits which are shown on the current Permit to Operate and which do not exceed the applicable Compliance Limits in Section 5.0) shall submit to the APCO for approval, an emissions control plan of all actions. The control plan shall include a schedule of increments of progress that will be taken to comply with the requirements of the applicable NOx Compliance Limit in Section 5.0 and Compliance Schedule in Section 7.0 of District Rule 4703 (as amended 4/25/02). [District Rule 4703, 6.1.5] Federally Enforceable Through Title V Permit

32. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

33. Note: Formerly S-1129-52.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All produced fluids from all wells authorized by this permit shall be handled only in closed production equipment served by a 99% efficient vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain with the permit a listing (updated each calendar year) of all steam-enhanced wells authorized by this permit and such listing shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Emissions of Volatile Organic Compounds (VOC) shall not exceed 101.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

9. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

13. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

15. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

16. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

17. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

19. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

20. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
21. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

22. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

23. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

24. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

27. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

28. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

30. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

31. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

32. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

33. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

35. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

36. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

37. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

41. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

43. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

44. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

46. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. The date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

47. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. True vapor pressure of any liquid placed, stored, or held in the tank shall not exceed 0.5 psia at storage temperature. [District Rule 4623, 2.0] Federally Enforceable Through Title V Permit

2. True vapor pressure shall be measured at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored using the latest version of the Lawrence Berkeley National Laboratory Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph, as approved by ARB and EPA. In lieu of testing each uncontrolled fixed roof tank, operator may conduct a TVP testing of a representative tank provided that a representative testing plan (meeting the requirements of sections 6.2.1.1.1 through 6.2.1.1.5 of District Rule 4623) received and approved by APCO. [District Rule 4623, 6.2.2, 6.4.4] Federally Enforceable Through Title V Permit

3. Operator shall submit the records of TVP testing to the District within 45 days after the date of testing. The record shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

4. Operator shall keep accurate records of each liquid stored in the tank including its storage temperature, true vapor pressure (TVP) and API gravity make such records readily available for district inspection upon request. [District Rule 4623, 6.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit

2. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit

3. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

4. Operation of the engine shall not exceed 20 hours per year. Additional operating hours may be approved by the APCO if the permittee provides justification on a case-by-case basis. [District Rule 4702, 4.2.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

5. During operation of the engine, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

6. The permittee shall maintain monthly records of the date and number of hours of operation and records of operational characteristics monitoring. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1069-6
EXPIRATION DATE: 05/31/2016
SECTION: NW13  TOWNSHIP: 26S  RANGE: 20E
EQUIPMENT DESCRIPTION:
140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit

2. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit

3. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

4. Operation of the engine shall not exceed 20 hours per year. Additional operating hours may be approved by the APCO if the permittee provides justification on a case-by-case basis. [District Rule 4702, 4.2.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

5. During operation of the engine, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

6. The permittee shall maintain monthly records of the date and number of hours of operation and records of operational characteristics monitoring. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1070-6
PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit

2. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit

3. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

4. Operation of the engine shall not exceed 20 hours per year. Additional operating hours may be approved by the APCO if the permittee provides justification on a case-by-case basis. [District Rule 4702, 4.2.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

5. During operation of the engine, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

6. The permittee shall maintain monthly records of the date and number of hours of operation and records of operational characteristics monitoring. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-1074-6

EXPIRATION DATE: 05/31/2016

SECTION: NW30   TOWNSHIP: 28S   RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR CE NATCO NATURAL GAS/TEOR FIRED STEAM GENERATOR #15 WITH NORTH AMERICAN MODEL #6131 BURNER, O2 ANALYZER/CONTROLLER AND THERMOTICS SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.034 lb/MMBTU, SOx (as S): 0.034 lb/MMBTU, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.007 lb/MMBTU, or CO: 50 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

5. The scrubber shall be equipped with a differential pressure gauge to indicate the pressure drop across the unit. The gauge shall be maintained in good working condition at all times. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

6. Scrubber liquid supply (at inlet to scrubber) shall have an operational pressure indicator. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

7. Scrubber liquid supply (at inlet to scrubber) shall have an operational flow meter. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

8. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

9. Scrubber stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit

10. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

11. The permittee shall keep daily records of the amount of gas combusted, and the date and duration of scrubber operation, for a period of two years, and shall make records available for inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

12. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. When utilizing scrubber, source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

15. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

16. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201 Rule] Federally Enforceable Through Title V Permit

17. This permit unit shall not be operated unless owner or operator apply to modify Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-1075-6

EXPIRATION DATE: 05/31/2016

SECTION: NW30  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR CE NATCO NATURAL GAS/TEOR FIRED STEAM GENERATOR #16 WITH NORTH AMERICAN MODEL #6131 BURNER, O2 ANALYZER/CONTROLLER AND ANDERSON SCRUBBER

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following limits: PM10: 0.034 lb/MMBTU, SOx (as S): 0.034 lb/MMBTU, NOx (as NO2): 30 ppmv @3% O2, VOC: 0.007 lb/MMBTU, or CO: 50 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

5. The scrubber shall be equipped with a differential pressure gauge to indicate the pressure drop across the unit. The gauge shall be maintained in good working condition at all times. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Scrubber liquid supply (at inlet to scrubber) shall have an operational pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Scrubber liquid supply (at inlet to scrubber) shall have an operational flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Scrubber stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit

10. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The permittee shall keep daily records of the amount of gas combusted, and the date and duration of scrubber operation, for a period of two years, and shall make records available for inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

12. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4701] Federally Enforceable Through Title V Permit

13. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

15. When utilizing scrubber source testing to demonstrate compliance with SOx emission limit shall be conducted not less than once every 12 months. When not utilizing scrubber, fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

17. This permit unit shall not be operated unless owner or operator apply to modify Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Vapors collected from the well vent vapor collection and control system shall either be piped to the field gas gathering system, or the 2038 or 2972 steam plant (2038 consists of units S-1547-57, 59, 60, 61, 120, and 250; 2972 consists of units S-1547-77, 78, 123, 124, 135, 136, and 146), or TEOR system S-1547-359, or to DOGGR-approved injection wells. Alternatively, the wells can be operated with the casing vents closed. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Water/VOCs condensate from all liquid knockout drums shall be pumped to production manifold, recycled to productions wells for disposal, or pumped to vapor controlled storage tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Emissions of volatile organic compounds (VOC) shall not exceed 236.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit a listing (updated each calendar year) of all steam-enhanced wells connected to the casing vent control system and such listing shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2320, 13.2] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

9. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

13. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

15. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit

16. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

17. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualize (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
19. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

20. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit

21. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8] Federally Enforceable Through Title V Permit

22. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

23. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

24. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

26. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

27. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit

28. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

30. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

32. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1.4] Federally Enforceable Through Title V Permit

33. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit

34. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

35. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit

36. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

37. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.9] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit

41. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
43. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

44. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

45. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit

46. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

47. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-1086-6

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emissions from this unit shall not exceed any of the following: PM10: 2.11 lb/hr, SOx (as S): 0.034 lb/MMBTU, VOC: 0.42 lb/hr, NOx (as NO2): 30 ppmv @3% O2; or CO: 50 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit

5. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2201]

6. The scrubber shall be equipped with a differential pressure gauge to indicate the pressure drop across the unit. The gauge shall be maintained in good working condition at all times. [District Rule 2201]

7. Scrubber liquid supply (at inlet to scrubber) shall have an operational pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Scrubber liquid supply (at inlet to scrubber) shall have an operational flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Scrubber stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit

11. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall have no detectible leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Unit is authorized to burn TEOR S-1547-1079 gas. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Testing for gas sulfur content shall be conducted no less than monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
15. Compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months, except as provided below. [District Rule 4305] Federally Enforceable Through Title V Permit

16. Compliance with NOx and CO emission limits shall be demonstrated not less than once every 36 months if compliance is demonstrated on two consecutive annual compliance tests. [District Rule 4305] Federally Enforceable Through Title V Permit

17. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 4305] Federally Enforceable Through Title V Permit

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The permittee shall keep daily records of the amount of gas combusted, and the date and duration of scrubber operation, for a period of two years, and shall make records available for inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

20. This equipment shall not be operated for any reason until necessary retrofits are made so that the equipment is in full compliance with the applicable requirements of District Rule 4305. [District Rule 4305] Federally Enforceable Through Title V Permit

21. No modification to this unit shall be performed without an Authority to Construct permit for that modification, except for changes specified in Condition #3, below. [District Rule 2201] Federally Enforceable Through Title V Permit

22. All fuel supply lines shall be physically disconnected from this unit. [District Rule 4305] Federally Enforceable Through Title V Permit

23. Emissions from this unit shall not exceed any of the following: 30 ppmv NOx, corrected to 3% oxygen or 400 ppmv CO, corrected to 3% oxygen. [District Rule 4305] Federally Enforceable Through Title V Permit

24. A source test demonstrating compliance with the indicated emissions limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 1070] Federally Enforceable Through Title V Permit

25. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Excess combustion air shall be maintained at approximately 2.3% excess O2 by continuous operation of oxygen analyzer/controller. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Fuel oil sulfur content shall not exceed 1.2% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Scrubber liquor pH shall be maintained between 6.0 and 7.5 and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Steam generator firebox, convection section, and all flue gas ductwork shall be free of visible leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Emission rates shall not exceed the following PM10: 4.56 lb/hr, SOx (as SO2): 3.82 lb/hr, VOC: 2.03 lb/hr, and SO4: 1.70 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Note: Formerly S-1129-845.

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1088-8

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Emission rates shall not exceed any of the following limits: PM10: 0.010 lb/MMBTU, SOx (as SO2): 0.002 lb/MMBTU, NOx(as NO2): 30 ppmv @3% O2, VOC: 0.003 lb/MMBTU, or CO: 400 ppmv @3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

5. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4701] Federally Enforceable Through Title V Permit

6. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

8. This unit shall be fired exclusively on natural gas which may consist of one or a mixture of fuels including treated produced gas and purchased gas with a sulfur content not to exceed 0.70 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Fuel sulfur content shall be certified by a third party fuel supplier or compliance with sulfur compound emission limit shall be demonstrated not less than once every 12 months by fuel gas sulfur content analysis and higher heating value analysis of each fuel source. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Note: Formerly S-1129-847. [Note]

12. This permit unit shall not be operated unless owner or operator apply to modify Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1069-8
EXPIRATION DATE: 05/31/2016

SECTION: 15  TOWNSHIP: 27S  RANGE: 19E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL #QLN-ULN ULTRA LOW-NOX BURNER WITH FLUE GAS RECIRCULATION AND SO2 SCRUBBER LISTED ON S-1135-26 (HSG-186)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

2. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2201, 2520 Section 9.3.2, and 4320] Federally Enforceable Through Title V Permit

5. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

6. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

7. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.0266 lb/MMBtu, SOx (as SO2): 9 ppmv @3% O2, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1 4320, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
8. Emission rates during refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/scf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NOX - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following: PM10: 39.9 lb/day, SOx (as SO2): 23.3 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of start-up and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. [District Rule 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit

11. Duration of refractory curing shall not exceed 30 hours each per occurrence. Permittee shall notify the District in writing prior to refractory curing. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Permittee shall maintain records of duration of each start-up and shutdown, and refractory curing, for a period of five years and make such records readily available for District inspection upon request. [District Rule 2080; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

17. When steam generator exhaust is routed through scrubber, steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

18. When scrubber is bypassed, fuel gas sulfur content shall not exceed 5 grains of total sulfur per 100 dscf of fuel gas. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit
19. When steam generator exhaust is routed through the scrubber, permittee shall monitor and record scrubber liquor recirculation rate and pH at least once per month. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

20. Source testing to demonstrate compliance with SOX emission limits (SOx emission concentration or control efficiency) in this permit shall be conducted annually. Source testing may be deferred if scrubber is bypassed as authorized by this permit. Whenever the unit is switched to scrubbed operation, compliance source testing for SOX shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 shall satisfy the testing requirement for this unit. [District Rules 2201 and 4320, 5.7] Federally Enforceable Through Title V Permit

21. Source testing to demonstrate compliance with the PM10 emission limit (lb/MMBtu) included in this permit shall be conducted concurrently with the initial compliance test for SOX and every three years thereafter. Source testing of scrubber exhaust during operation of any one of the steam generators S-1135-26 or S-1547-1089 when firing the maximum available quantity of waste gas shall satisfy the PM10 testing requirement for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation but no longer than 2 hrs after re-ignition. [District Rules 4305, 5.5; 4306, 5.5, and 4320, 5.8] Federally Enforceable Through Title V Permit

23. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

25. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or 10B or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; SOx (lb/MMBtu) - ARB Method 8 or 10 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19; fuel gas sulfur content - EPA Method 11 or 15; ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory; fuel gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 (lb/scf) - EPA Methods 5, 201A, and 202. [District Rules 1081, 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

29. Note: Formerly S-1129-848. [Note]

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1098-5

EXPIRATION DATE: 05/31/2016

SECTION: NW13 TOWNSHIP: 26S RANGE: 20E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR (HSG #181; DIS# 20622-81) WITH NORTH AMERICAN BURNER (TAYLOR LEASE)

PERMIT UNIT REQUIREMENTS

1. Operation of the unit is not authorized until modifications are made to comply with District Rules as authorized by an Authority to Construct. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

4. Particulate matter emissions from any combustion source shall not exceed 0.1 grains/dscf (calculated to 12% carbon dioxide). [District Rule 4301] Federally Enforceable Through Title V Permit

5. All combustion equipment (burner, combustion air controls, etc.) shall be operated and maintained as intended by manufacturer. [District Rule 2080] Federally Enforceable Through Title V Permit

6. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2080] Federally Enforceable Through Title V Permit

7. When gas firing, compliance source testing for fuel gas sulfur content shall be conducted annually (or as approved by the District) within 60 days prior to the permit anniversary. [District Rule 1070] Federally Enforceable Through Title V Permit

8. The sample collection shall be conducted under conditions (fuel quality, firing rate, waste gas incineration, air fuel ratio, etc.) expected to result in emissions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

9. The operational conditions during compliance testing may be imposed as permit requirements. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. Maximum emission rates for permit unit shall not exceed PM10: 0.010 lb/MMBtu, SOx (as SO2): 0.001 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu, VOC: 0.003 lb/MMBtu, and CO: 0.007 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. This permit unit shall comply with NOx and sulfur compound emission requirements as specified in Rules 4405 and 4406. [District Rules 4405 and 4406] Federally Enforceable Through Title V Permit

15. For any day monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrates, etc) or, if such data is not available, for the four days of operation preceding the breakdown. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701] Federally Enforceable Through Title V Permit

17. Formerly S-1141-436-1

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel shall vent only to vapor control system listed in S-1547-704. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

3. FWKO vessel cleaning shall not exceed once per calendar quarter and records (time & date of start and completion) of such cleaning shall be maintained and available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Fugitive VOC emission rate shall not exceed 5.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for equipment according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201]

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17 and 3.18] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves directly affixed to the vessel or associated with the gas collection system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2]

10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Vessel shall vent only to vapor control system listed in S-1547-704. [District Rule 2201]

2. FWKO covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201]

3. FWKO vessel cleaning shall not exceed once per calendar quarter and records (time & date of start and completion) of such cleaning shall be maintained and available for District inspection upon request. [District Rule 2201]

4. Fugitive VOC emission rate shall not exceed 5.4 lb/day. [District Rule 2201]

5. Permittee shall maintain with the permit accurate fugitive component counts for equipment according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201]

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17, 3.18] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves directly affixed to the vessel or associated with the gas collection system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1670]
PERMIT UNIT REQUIREMENTS

1. Vessel shall vent only to vapor control system listed in S-1547-704. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO covers, inspection hatches, etc. shall be maintained in leak-free (as defined in Rule 4623) condition except during vessel cleaning, repair and maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

3. FWKO vessel cleaning shall not exceed once per calendar quarter and records (time & date of start and completion) of such cleaning shall be maintained and available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Fugitive VOC emission rate shall not exceed 5.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain with the permit accurate fugitive component counts for equipment according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17, 3.18] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves directly affixed to the vessel or associated with the gas collection system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070]
PERMIT UNIT: S-1547-1104-3

EXPIRATION DATE: 05/31/2016

SECTION: SE 19  TOWNSHIP: 28S  RANGE: 21E

EQUIPMENT DESCRIPTION:
37,600 GALLON FREE-KNOCKOUT VESSEL WITH VAPOR COLLECTION (KING ELLIS LEASE)

PERMIT UNIT REQUIREMENTS

1. Collected vapors shall be discharged to the field gas gathering system, TEOR System S-1547-1079, or TEOR System S-1547-359. [District Rule 2201] Federally Enforceable Through Title V Permit

2. VOC emission rate from components shall not exceed 15.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using U.S. EPA Publication 453/R-95-017, Table 2-4 or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All piping, fittings, and valves directly affixed to the vessel or associated with the gas collection system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.11, 3.17, 3.18] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall: 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1105-2    EXPIRATION DATE: 05/31/2016

SECTION: NW 33   TOWNSHIP: 28S   RANGE: 21 E

EQUIPMENT DESCRIPTION:
1085 HP DETROIT DIESEL DIESEL- FIRED MODEL 16V-92 8163-7405 EMERGENCY IC ENGINE (#355) WITH TURBOCHARGER POWERING A 800 KW ELECTRICAL GENERATOR (HILL WATER SYSTEM)

PERMIT UNIT REQUIREMENTS

1. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The exhaust stack shall not be fitted with a rain cap or similar device that would impede vertical exhaust flow. [District Rule 4102] Federally Enforceable Through Title V Permit

3. NOx emission shall not exceed 5.8 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The PM10 emission shall not exceed 0.16 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit

8. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 2201, 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

9. This engine shall be monitored, operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. Examples of monitoring and maintenance are: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or check other operational characteristics as recommended by the manufacturer or supplier. [District Rule 4702] Federally Enforceable Through Title V Permit

10. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1110-1

EQUIPMENT DESCRIPTION:
7,000 GALLON HYDROCHLORIC ACID STORAGE TANK (T19-12) WITH FUME SCRUBBER - SECTION 27 WATER PLANT

PERMIT UNIT REQUIREMENTS

1. Tank shall store only hydrochloric acid (HCl). [District Rule 4102]
2. Tank fume scrubber shall be operated while adding HCl into the storage tank. [District Rule 4102]
3. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 4102]
4. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
5. Fresh scrubber liquid (water) shall be added as necessary to maintain at least manufacture's listed scrubbing efficiency. [District Rule 4102]
6. Spent packed water column water shall be disposed of in a manner preventing acid emissions. [District Rule 4102]

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1111-1

SECTION: SE19    TOWNSHIP: 26S    RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
15,000 GALLON HYDROCHLORIC ACID STORAGE TANK WITH FUME SCRUBBER - LOST HILLS TWO LEASE

PERMIT UNIT REQUIREMENTS

1. Tank shall store only hydrochloric acid (HCl). [District Rule 4102]
2. Tank fume scrubber shall be operational while adding HCl into the storage tank. [District Rule 4102]
3. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 4102]
4. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
5. Fresh scrubber liquid (water) shall be added as necessary to maintain at least manufacturer's listed scrubbing efficiency. [District Rule 4102]
6. Spent packed water column water shall be disposed of in a manner preventing acid emissions. [District Rule 4102]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank shall store only hydrochloric acid (HCl). [District Rule 4102]
2. Tank fume scrubber shall be operated while adding HCl into the storage tank. [District Rule 4102]
3. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 4102]
4. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
5. Fresh scrubber liquid (water) shall be added as necessary to maintain at least manufacturer's listed scrubbing efficiency. [District Rule 4102]
6. Spent packed water column water shall be disposed of in a manner preventing acid emissions. [District Rule 4102]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1114-1

SECTION: SW28  TOWNSHIP: 28S  RANGE: 21E

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
2,730,000 GALLON (65,000 BBL) FIXED ROOF CRUDE OIL STORAGE TANK #T-471 WITH VAPOR CONTROL SYSTEM (SHARED WITH S-1547-384) INCLUDING COMPRESSOR(S), COOLER(S), LIQUID KNOCKOUT(S), AND PIPING TO FIELD GAS SYSTEM (ALSO PERMITTED AS S-1548-45 IN LOW SS)

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system consisting of gas gathering system. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The tank and tank vapor recovery system, including all piping, valves, and fittings shall be maintained in a leak-free (as defined by Rule 4623) condition. [District Rule 4623] Federally Enforceable Through Title V Permit

3. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects the VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rule 2201 & 4623] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. When storing liquids with a true vapor pressure greater than 0.5 psia, a reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit

6. The tank shall be equipped with a vapor loss prevention system capable of collecting the VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rule 2201 and 4623] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any component leak shall be repaired to a leak-free condition within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

14. VOC fugitive emissions from the components in gas service on tank and tank vapor control system, including vapor control system trunk line, shall not exceed 40.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain with the permit accurate fugitive component counts for tank and tank vapor control system, including vapor control system trunk line, according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. Tank gauging or sampling devices shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All piping valves and fittings shall be constructed and maintained in a gas tight condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 10.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The true vapor pressure (TVP) of any liquid placed, stored or held in the tank shall be less than 0.5 psia at storage temperature. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times and shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. This permit authorizes induced static flotation unit cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall conduct induced static flotation unit cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Induced static flotation unit may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall notify the District Compliance division at least 48 hours before induced static flotation unit cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Prior to opening the induced static flotation unit to allow cleaning the following procedures must be followed: Operate PV valve and vapor recovery system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the induced static flotation unit to the maximum extent feasible prior to opening the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Prior to opening the induced static flotation unit to allow tank cleaning one of the following options must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the induced static flotation unit has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the induced static flotation unit liquid capacity is displaced, 3) vent the induced static flotation unit to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the induced static flotation unit to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \), where \( t \) = time, \( V \) = induced static flotation unit volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
20. The induced static flotation unit shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to reintroducing crude oil/water to the induced static flotation unit, the induced static flotation unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the tank vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the induced static flotation unit. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Within 48 hours after refilling the induced static flotation unit with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the induced static flotation unit is disconnected or isolated from the vapor control system. Records shall include the date that induced static flotation unit cleaning was initiated, the date induced static flotation unit cleaning was completed, the method of induced static flotation unit cleaning used, and a description of internal and external induced static flotation unit repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1116-1
EXPIRATION DATE: 05/31/2016
SECTION: SW02 TOWNSHIP: 29S RANGE: 21E
EQUIPMENT DESCRIPTION:
UP TO 106,200 GALLON FWKO D-4008 VENTED TO SHARED VAPOR CONTROL SYSTEM LISTED ON S-1547-888

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred off site. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 13.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred offsite. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 13.5 lb/day. [District Rule 2201]

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-1119-1

PERMIT UNIT REQUIREMENTS

1. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained leak-free, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rules 2201 & 2520] Federally Enforceable Through Title V Permit

2. Vessel shall be designed and maintained to vent only to vapor collection system, permit S-1547-888, except during periods of vessel cleaning, vapor control system maintenance, and power outages due to a voluntary demand reduction program. [District Rule 2201] Federally Enforceable Through Title V Permit

3. An operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the ISF dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during periods of vapor control system maintenance, power outages, and tank cleaning, vapor control system shall operate with a minimum efficiency of 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All solids removed from vessel during normal operation shall be sent to sand basin permitted as S-1547-842 or transferred to site. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC fugitive emissions from the components in gas service on tank and tank vapor collection system shall not exceed 10.0 lb/day. [District Rule 2201]

7. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using oil & gas production operations average emission factors from Table 2-4 of the U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

9. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Any induced static flotation cell gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
11. All piping, fittings, and valves directly affixed to the induced static floatation cell or associated with the induced static floatation cell vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the induced static floatation cell components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no induced static floatation cell components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator shall ensure that the vapor collection and control systems are functional and are operating as designed at all times, except during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1121-3 EXPIRATION DATE: 05/31/2016
SECTION: 26 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:
12,000 GALLON SURGE VESSEL, 12 FEET DIAMETER BY 14 FEET SEAM HEIGHT VENTED TO SHARED VAPOR
CONTROL SYSTEM LISTED ON S-1547-704 (A/F DEHY)

PERMIT UNIT REQUIREMENTS

1. Vessel and all vessel appurtenances shall be maintained leak-free, as defined in Rule 4623, except during periods of
vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable
Through Title V Permit

2. Any component found to be in non-compliance with the leak-free requirement shall be repaired to a leak-free condition
within 15 days of detection. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Vessel shall be designed and maintained to vent only to vapor control system listed on permit S-1547-704, except
during periods of vessel cleaning, vapor control system maintenance, and power outages. [District Rule 2201]
Federally Enforceable Through Title V Permit

4. VOC emissions from vapor recovery components associated with this vessel shall not exceed 6.2 lb/day. [District Rule
2201] Federally Enforceable Through Title V Permit

5. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor recovery system shall be
inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with
methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak
during an annual inspection, the inspection frequency for that component type shall be changed from annual to
quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the
inspection frequency may change from quarterly to annual. Components located in inaccessible (over 15 feet
above ground when access is required from the ground or over 6 feet away from a platform when access is required
from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be
inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and
repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible
tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is
repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2]
Federally Enforceable Through Title V Permit

7. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is
repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or
which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520,
9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Permittee shall maintain an accurate fugitive component count for the vessel and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1547-1122-2
SECTION: SW27  TOWNSHIP: 28S  RANGE: 21E
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
UP TO 104 HEAVY OIL TEST STATIONS (HOTS), CLOSED PIPING SYSTEM, AND ONE OR MORE PRESSURE VESSEL TEST TANK(S)

PERMIT UNIT REQUIREMENTS

1. Total VOC fugitive emission rate from HOTS equipment shall not exceed 452.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. FWKO shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from FWKO and a VOC control device. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained in a gas tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO shall be designed and maintained to vent only to vapor control system S-1547-888 and an operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The operator shall ensure that the vapor control system is functional and is operating as designed at all times and shall monitor vapor control compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 13.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

7. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. This permit authorizes FWKO cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permitee shall conduct FWKO cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. FWKO may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permitee shall notify the District Compliance division at least 48 hours before FWKO cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. Prior to opening the FWKO to allow cleaning the following procedures must be followed: Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the FWKO to the maximum extent feasible prior to opening the FWKO. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to opening the FWKO to allow FWKO cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the FWKO has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the FWKO liquid capacity is displaced, 3) vent the FWKO to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the FWKO to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \times V}{Q} \), where \( t \) = time, \( V \) = FWKO volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

22. The FWKO shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Prior to reintroducing crude oil/water to the FWKO, the FWKO unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the vessel vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the FWKO. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Within 48 hours after refilling the FWKO with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. FWKO shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from FWKO and a VOC control device. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained in a gas tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO shall be designed and maintained to vent only to vapor control system S-1547-888 and an operational flow check valve shall be operational (except during times when vapor control system line is closed) downstream of the FWKO dome gas separator. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The operator shall ensure that the vapor control system is functional and is operating as designed at all times and shall monitor vapor control compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor control components associated with this emissions unit shall not exceed 13.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District approved factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

7. Except as otherwise provided in this permit, a reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. This permit authorizes FWKO cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct FWKO cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. FWKO may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 48 hours before FWKO cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
20. Prior to opening the FWKO to allow cleaning the following procedures must be followed: Operate PV valve and vapor control system (if equipped) during emptying, filling, and flushing. During filling and purging, no vapor leakage is allowed. Drain all liquid from the FWKO to the maximum extent feasible prior to opening the FWKO. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Prior to opening the FWKO to allow FWKO cleaning one of the following options must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the FWKO has been drained to the maximum extent feasible, 2) displace vapors floating the oil pad off with water such that 90% of the FWKO liquid capacity is displaced, 3) vent the FWKO to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less, or 4) vent the FWKO to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \ V}{Q} \), where \( t \) = time, \( V \) = FWKO volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

22. The FWKO shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. Sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Prior to reintroducing crude oil/water to the FWKO, the FWKO unit shall be filled to the maximum possible level with water or an organic liquid with a TVP less than 0.5 psia, the vessel vapor control system shall be reactivated, and the liquid level shall be adjusted as necessary. Pressure/relief valve shall not open during filling of the FWKO. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Within 48 hours after refilling the FWKO with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1127-1

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
11,000 GALLON HYDROCHLORIC ACID STORAGE TANK WITH FUME SCRUBBER - SECTION 2 WATER PLANT

PERMIT UNIT REQUIREMENTS

1. Tank shall store only hydrochloric acid (HCl). [District Rule 4102]
2. Tank fume scrubber shall be operated while adding HCl into the storage tank. [District Rule 4102]
3. Scrubber sprays and/or nozzles shall be maintained in optimum working condition. [District Rule 4102]
4. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
5. Fresh scrubber liquid (water) shall be added per manufacturer's recommendations to maintain a scrubbing efficiency of at least 99%. [District Rule 4102]
6. Spent packed water column water shall be disposed of in a manner preventing acid emissions. [District Rule 4102]

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1137-2

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
ONE 150,000 GALLON OILFIELD PRODUCTION SAND BASIN. - (DEHY 2)

PERMIT UNIT REQUIREMENTS

1. Sand basin shall receive liquids and solids only from AERA’s Heavy Oil Western Stationary Source. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The sand basin shall be covered by a tarp (sun screen) to aid in reducing potential air contaminant emissions except during maintenance and clean out operations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. During the clean out operation, the solids and liquids shall be removed from the sand basin in a timely manner to minimize VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emissions shall not exceed the following 0.006 lb/sq ft-day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The sand basin surface area shall not exceed 2,500 sq.ft. [District Rule 2201] Federally Enforceable Through Title V Permit

6. This sand basin shall not operate as a sump as defined in District Rule 4402. [District Rule 4402, 2.0] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1138-2
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
ONE 150,000 GALLON OILFIELD PRODUCTION SAND BASIN. - (DEHY 2)

PERMIT UNIT REQUIREMENTS

1. Sand basin shall receive liquids and solids only from AERA's Heavy Oil Western Stationary Source. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The sand basin shall be covered by a tarp (sun screen) to aid in reducing potential air contaminant emissions except during maintenance and clean out operations. [District Rule 2201] Federally Enforceable Through Title V Permit

3. During the clean out operation, the solids and liquids shall be removed from the sand basin in a timely manner to minimize VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emissions shall not exceed the following 0.006 lb/sq ft-day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The sand basin surface area shall not exceed 2,500 sq.ft. [District Rule 2201] Federally Enforceable Through Title V Permit

6. This sand basin shall not operate as a sump as defined in District Rule 4402. [District Rule 4402, 2.0] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1142-7
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER AND FGR, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#100A)

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or 5840 lb/yr or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.2.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. The operator shall demonstrate compliance with this unit's sulfur compound exhaust concentration limit(s) using one of the following: fire the unit only on PUC or FERC regulated natural gas, test the sulfur content of each fuel source, or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.4.2, 4301, 5.2 and Rule 4801, 3.1] Federally Enforceable Through Title V Permit

14. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. If periodic monitoring of NOX, CO, and O2 concentrations is utilized and the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

16. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, all alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

17. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
19. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit

20. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

22. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Duration of start-up and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or 5840 lb/yr, or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 1070, 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 1070, 2520; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If periodic monitoring of NOx, CO, and O2 concentrations is utilized and the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, all alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1144-6
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MMBCU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER AND FGR, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102] Federally Enforceable Through Title V Permit

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing to maintain ongoing compliance documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or 5840 lb/yr or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.2.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 5.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If periodic monitoring of NOX, CO, and O2 concentrations is utilized and the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, all alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. If periodic monitoring of NOX, CO, and O2 concentrations is utilized, the permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 109 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1145-3  EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER AND FGR APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#100D)

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 9 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.2.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOx, CO or O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1. 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

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6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 9 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

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8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOX, CO or O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely for monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

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16. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

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18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

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21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1. 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
Permit Unit: S-1547-1147-3

Expiration Date: 05/31/2016

Equipment Description:
85.0 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER AND FGR APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS (#100F)

Permit Unit Requirements

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R1E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rule 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

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8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of the three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1. 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1148-3
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MM BTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER (SG100G) AND FGR APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS.

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rule 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 1070, 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOx, CO or O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. Permitee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1. 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1149-3
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER (SG100H) AND FGR APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS.

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rule 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MBtu, VOC: 0.0055 lb/MBtu, NOx (as NO2): 9 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOx, CO and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months, (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1. 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1150-3
EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:
85.0 MMBOIL/HR NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231-85-GLE BURNER
(SG1000) AND FGR APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS.

PERMIT UNIT REQUIREMENTS

1. This unit is approved for operation at the following locations: NE/4 Section 33, T28S, R21E; SE/4 Section 33, T28S, R21E and SE/4 Section 28, T28S, R21E. [District Rule 4102]

2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

3. Flue gas recirculation (FGR) shall be utilized in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits unless source testing documents compliance without utilizing the flue gas recirculation. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Natural gas fuel sulfur content shall not exceed 0.75 grains S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit

6. Emission rates, except during startup, shutdown, and refractory curing, shall not exceed any of the following: PM10: 0.0076 lb/MMMBtu, VOC: 0.0055 lb/MMMBtu, NOx (as NO2): 9 ppmv @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 5.1; 4306, 5.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

7. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: PM10: 15.5 lb/day, SOx (as SO2): 4.4 lb/day, VOC: 11.2 lb/day, NOx (as NO2): 22.2 lb/day or CO: 37.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Annual quantity of natural gas fuel burned in this steam generator shall not exceed 730 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D 6667 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 1070, 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

13. If periodic monitoring of NOx, CO, and O2 concentrations is utilized, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

14. If the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

16. Permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4; 4306, 5.4 and 4320, 5.7] Federally Enforceable Through Title V Permit

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081, 7.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months, (no more than 30 days before or after the required 36 months source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3 and 4320, 6.3] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5; 4306 and 4320, 5.5] Federally Enforceable Through Title V Permit

21. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084, D4468, D6667 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 6.1; 4305, 6.2; 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5; 4306, 5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Copies of all fuel invoices showing quantity of supplier-certified gas delivered and copies of quality terms of supplier-certified gas delivery contracts shall be maintained. The operator shall record daily and annual amount, and types, of fuels combusted and all dates on which unit is fired on any non-certified fuel and record specific type of non-certified fuel used. [District Rules 2201 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of duration of each start-up, shutdown and refractory curing, for a period of five years and make such records available for District inspection upon request. [District Rules 2080, 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1; 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. FWKO shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from FWKO and a VOC control device. The vessel and APCO-approved vapor control system, including piping, valves, and fittings, shall be maintained in a gas tight condition. [District Rule 2201] Federally Enforceable Through Title V Permit

2. FWKO shall be designed and maintained to vent only to vapor control system S-1547-854. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emission rate from components in gas and light crude oil service associated with this emission unit shall not exceed 9.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit

5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520] Federally Enforceable Through Title V Permit

6. Any FWKO gauging or sampling device shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves directly affixed to the FWKO or associated with the FWKO vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the FWKO components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no FWKO components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. This permit authorizes FWKO cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall conduct FWKO cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

16. FWKO may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

17. FWKO cleaning shall not exceed once per calendar quarter and records (time and date of start and completion) of such cleaning shall be maintained and available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Permittee shall notify the District Compliance division at least 72 hours before FWKO cleaning and vapor control system disconnection. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit

19. All records shall be maintained and retained on the premises for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-1159-4  
EXPIRATION DATE: 05/31/2016

SECTION: 19  
TOWNSHIP: 26S  
RANGE: 21E

EQUIPMENT DESCRIPTION:
2000 BBL (84,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK, LACT TANK (F-108) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-854 - LOST HILLS 2 DEHYDRATION FACILITY

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emissions from this tank shall not exceed 108.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Tank may vent to vapor control system listed on PTO S-1547-854. Tank may be isolated from the vapor control system at any time (e.g. tank cleaning, maintenance, operational demands, etc.). [District Rule 2201] Federally Enforceable Through Title V Permit

6. When tank is connected to vapor control system, operator shall implement the inspection and maintenance program described in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves on this vessel shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201] Federally Enforceable Through Title V Permit

8. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of liquid leak and gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Comply with the following requirements to repair leaking components that have a gas leak >10,000 ppmv (measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane): 
   a. Eliminate the leak within 8 hours after detection; or 
   b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and 
   c. Eliminate the leak within 48 hours after minimization; and 
   d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

11. If a component type for a given vessel is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection; and method of detection; 3) Date and emission level of recheck after leak is repaired; and 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623, 6.2.2] Federally Enforceable Through Title V Permit

14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1] Federally Enforceable Through Title V Permit


16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1547-1160-4  
EXPIRATION DATE: 05/31/2016

SECTION: 19  
TOWNSHIP: 26S  
RANGE: 21E

EQUIPMENT DESCRIPTION: 
2000 BBL (84,000 GALLON) FIXED ROOF CRUDE OIL STORAGE TANK, LACT TANK (F-109) SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1547-854 - LOST HILLS 2 DEHYDRATION FACILITY

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emissions from this tank shall not exceed 108.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Tank may vent to vapor control system listed on PTO S-1547-854. Tank may be isolated from the vapor control system at any time (e.g. tank cleaning, maintenance, operational demands, etc.). [District Rule 2201] Federally Enforceable Through Title V Permit

6. When tank is connected to vapor control system, operator shall implement the inspection and maintenance program described in this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves on this vessel shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201] Federally Enforceable Through Title V Permit

8. If any of the vessel components are found to be leaking, operator shall immediately affix a tag and maintain records of liquid leak and gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Comply with the following requirements to repair leaking components that have a gas leak >10,000 ppmv (measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane): a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

11. If a component type for a given vessel is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623, 6.2.2] Federally Enforceable Through Title V Permit

14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1] Federally Enforceable Through Title V Permit


16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1202-1
EXPIRATION DATE: 05/31/2016
SECTION: 1 TOWNSHIP: 11N RANGE: 24W

EQUIPMENT DESCRIPTION:
560 BBL FWKO VESSEL (V-102) CONNECTED TO TEOR WELL VENT VAPOR COLLECTION SYSTEM S-1547-707 (D&E SANDS)

PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-707. [District Rule 2080] Federally Enforceable Through Title V Permit

2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2080] Federally Enforceable Through Title V Permit

5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit

7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule2080] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-707. [District Rule 2080] Federally Enforceable Through Title V Permit

2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2080] Federally Enforceable Through Title V Permit

5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit

7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-442. [District Rule 2080] Federally Enforceable Through Title V Permit

2. The tank and all piping, valves and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit

3. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit

4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

6. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

7. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

8. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

10. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-442. [District Rules 2080] Federally Enforceable Through Title V Permit

2. The tank and all piping, valves and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit

3. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit

4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

6. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

7. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

8. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
9. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of District Rule 4623. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of District Rule 4623. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

10. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

11. Any component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: 1) Date of all inspections; 2) Type and identification of leaking components; 3) Date of leak detection and method of detection; 4) Method used to minimize leak; and 5) Date and emission level of recheck after leak is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2080 and 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1206-1 EXPIRATION DATE: 05/31/2016
SECTION: 35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:
2,040 BBL FWKO VESSEL (D-101A) CONNECTED TO TANK VAPOR CONTROL SYSTEM S-1547-843 (MOCO)

PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-843. [District Rule 2080] Federally Enforceable Through Title V Permit
2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2080] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit
7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule2080] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1207-1
EXPIRATION DATE: 05/31/2016
SECTION: 35  TOWNSHIP: 12N  RANGE: 24W
EQUIPMENT DESCRIPTION:
2,040 BBL FWKO VESSEL (D-101B) CONNECTED TO TANK VAPOR COLLECTION SYSTEM S-1547-843 (MOCO)

PERMIT UNIT REQUIREMENTS

1. The pressure vessel shall vent only to the vapor control system listed on S-1547-843. [District Rule 2080] Federally Enforceable Through Title V Permit

2. All piping, fittings, and valves shall be constructed and maintained in a leak-free condition. [District Rule 2080] Federally Enforceable Through Title V Permit

3. Vessel covers, inspection hatches, etc. shall be maintained in a leak-free condition except during vessel cleaning, repair, or maintenance. [District Rule 2080] Federally Enforceable Through Title V Permit

4. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rule 2080] Federally Enforceable Through Title V Permit

5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2080] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2080] Federally Enforceable Through Title V Permit

7. An operator shall reinspect a component for leaks within 30 working days after the date on which the component is repaired. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2080] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one (1) year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2080] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2080] Federally Enforceable Through Title V Permit

13. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1209-5
EXPIRATION DATE: 05/31/2016
SECTION: NW 36    TOWNSHIP: 27S    RANGE: 20E

EQUIPMENT DESCRIPTION:
TWO THERMALLY ENHANCED OIL RECOVERY WELLS WITH BEAM-DRIVEN CASING GAS COMPRESSORS
OPERATED WITH PRODUCED GAS ROUTED TO PRODUCED FLUID LINE (BELRIDGE OIL FIELD)

PERMIT UNIT REQUIREMENTS

1. Produced gas shall be routed to produced fluid line prior to entering crude oil storage tanks. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

2. All produced fluids (gas, water, oil) from TEOR wells shall be sent to tanks served by a vapor control system with 99% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The VOC content of the casing gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 10% or less VOC by weight for eight consecutive quarterly sampling, the sampling frequency shall only be required annually. If a test shows noncompliance with the percent VOC requirement, the source must return to quarterly testing until eight consecutive quarters show compliance. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT REQUIREMENTS

1. This tank may be operated to store chemicals for the treatment of produced fluids from facilities S-1547 and S-1548. [District Rule 2080] Federally Enforceable Through Title V Permit

2. This tank is approved for operation at the following locations: NW and NE Section 20, SW Section 27 and SE Section 28 of T28S, R21E. [District Rule 4102]

3. Permittee shall notify District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]

4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Tank shall be equipped with an operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

7. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit

8. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit

10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

11. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not to exceed 2.1 psia under all storage conditions. [District Rules 2201 and 4623]
12. Tank throughput shall not exceed 234,000 gallon per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Tank throughput shall not exceed 6,500 gallon per day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. VOC emission rate from the tank shall not exceed 2.7 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

15. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit

16. The permit holder shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

17. The true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of the "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588," dated August 1989. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

18. In lieu of testing each uncontrolled fixed roof tank, the permit holder may conduct a TVP testing of the organic liquid stored in a representative tank provided the following requirements are met: (1) the selection of representative, uncontrolled fixed roof tanks shall be submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) one uncontrolled fixed roof tank represents some or all of the tanks in a tank battery (as defined in Rule 4623, Section 3.31, Amended 5/19/05); (3) the TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent; and (4) the stored organic liquid in each of the represented tanks is the same and came from the same source. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit

19. Operator shall submit the records of TVP testing conducted in accordance with the testing requirements of Rule 4623, 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

20. Permittee shall maintain accurate records of tank throughput, true vapor pressure and temperature of liquid in the tank, inspection log and such records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1547-1215-1 EXPIRATION DATE: 05/31/2016
SECTION: NW20 TOWNSHIP: 28S RANGE: 21E
EQUIPMENT DESCRIPTION:
6,500 GALLON OILFIELD CHEMICAL STORAGE TANK #2 - DEHY 20

PERMIT UNIT REQUIREMENTS

1. This tank may be operated to store chemicals for the treatment of produced fluids from facilities S-1547 and S-1548. [District Rule 2080] Federally Enforceable Through Title V Permit

2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit

5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit

6. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit

8. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

9. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) not to exceed 2.1 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

10. Tank throughput shall not exceed 234,000 gallon per year. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Tank throughput shall not exceed 6,500 gallon per day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. VOC emission rate from the tank shall not exceed 2.7 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

13. True vapor testing (TVP) testing to demonstrate compliance with Rule 4623 shall be conducted within 60 days of startup, and once every 24 months during summer (July - September) thereafter. [District Rules 1081 and 4623] Federally Enforceable Through Title V Permit

14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit

15. The permit holder shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

16. The true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of the "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588," dated August 1989. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

17. In lieu of testing each uncontrolled fixed roof tank, the permit holder may conduct a TVP testing of the organic liquid stored in a representative tank provided the following requirements are met: (1) the selection of representative, uncontrolled fixed roof tanks shall be submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) one uncontrolled fixed roof tank represents some or all of the tanks in a tank battery (as defined in Rule 4623, Section 3.31, Amended 5/19/05); (3) the TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent; and (4) the stored organic liquid in each of the represented tanks is the same and came from the same source. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit

18. An operator shall submit the records of TVP testing conducted in accordance with the testing requirements of Rule 4623, 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

19. Permittee shall maintain accurate records of tank throughput, true vapor pressure and temperature of liquid in the tank, inspection log and such records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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