Jan 20 2012

Martin Lundy
Chevron USA Inc
P O Box 1392
Bakersfield, CA 93302

Re: Notice of Final Action - Title V Permit Renewal
District Facility # S-1129
Project # S-1063774

Dear Mr. Lundy:

The District has issued the Final Title V Permit for Chevron USA Inc. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on November 1, 2011. A summary of the comments and the District's response to each comment is included with the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter. All deficiencies cited by the EPA in their objection have been addressed.

Thank you for your cooperation in this matter. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

[Signature]
David Warner
Director of Permit Services

Attachments

cc: Vanessa Gonzalez, Permit Services Engineer
JAN 20 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-1129
Project # S-1063774

Dear Mr. Rios:

The District has issued the Final Title V Permit Renewal for Chevron USA Inc. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on November 1, 2011. A summary of the comments and the District's response to each comment is included with the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter. All deficiencies cited by the EPA in their objection have been addressed.

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. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner
Director of Permit Services

Attachments

cc: Vanesa Gonzalez, Permit Services Engineer
JAN 20 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-1129
Project # S-1063774

Dear Mr. Tollstrup:

The District has issued the Final Title V Permit for Chevron USA Inc. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on November 1, 2011. A summary of the comments and the District’s response to each comment is included with the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter. All deficiencies cited by the EPA in their objection have been addressed.

I would like to thank you and your staff for working with us. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner
Director of Permit Services

Attachments

cc: Vanessa Gonzalez, 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 Chevron USA Inc for its Heavy Oil Facility at Heavy Oil Western in Kern County, California.

The District’s analysis of the legal and factual basis for this proposed action, project #S-1063774, 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. Jim Swaney, Permit Services Manager, at (559) 230-5900, 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.
# SAN JOAQUIN VALLEY
# AIR POLLUTION CONTROL DISTRICT

Title V Permit Renewal Evaluation  
CHEVRON USA INC  
S-1129

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A. RENEWED TITLE V OPERATING PERMIT  
B. PREVIOUS TITLE V OPERATING PERMIT  
C. DETAILED FACILITY LIST  
D. EPA AND FACILITY COMMENTS/DISTRICT RESPONSE
TITLE V PERMIT RENEWAL EVALUATION

Heavy Oil Production Facility

Engineer: Vanesa Gonzalez
Date: January 17, 2012

Facility Number: S-1129
Facility Name: Chevron USA
Mailing Address: P O Box 1392
Bakersfield, CA 93302

Contact Name: Martin Lundy
Phone: (661) 654-7142

Responsible Official: Jason Donchin
Title: Assistant Secretary

Project #: S-1063774
Deemed Complete: September 21, 2006

I. PROPOSAL

Chevron USA Inc was issued a Title V permit on June 30, 2002. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

II. FACILITY LOCATION

Chevron USA, Inc is located at Heavy Oil Western in Kern County.
III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A Rules Updated

- District Rule 2020, Exemptions (amended August 18, 2011)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended December 18, 2008)
- District Rule 4101, Visible Emissions (amended November 15, 2001 ⇒ February 17, 2005)
- District Rule 4601, Architectural Coatings (December 17, 2009)
- District Rules 8021, 8031, 8041, 8051, 8061, Fugitive Dust (PM10) Emissions (amended August 19, 2004)

**B Rules Removed**

No rules have been removed.

**C Rules Added**

- 40 CFR 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines*

**D Rules Not Updated**

- District Rule 1100, *Equipment Breakdown* (amended December 17, 1992)
- District Rule 1160, *Emission Statements* (adopted November 18, 1992)
- District Rule 2010, *Permits Required* (amended December 17, 1992)
- District Rule 2031, *Transfer of Permits* (adopted December 17, 1992)
- District Rule 2040, *Applications* (amended December 17, 1992)
- District Rule 2070, *Standards for Granting Applications* (adopted December 17, 1992)
- District Rule 2080, *Conditional Approval* (amended December 17, 1992)
- District Rule 2520, *Federally Mandate Operating Permits* (amended June 21, 2001)

- District Rule 4201, *Particulate Matter Concentration* (amended October 31, 2001)

- District Rule 4301, *Fuel Burning Equipment* (amended December 17, 1992)

- District Rule 4701, *Internal Combustion Engines* (amended December 17, 1992)

- District Rule 4801, *Sulfur Compounds* (adopted November 18, 1992)

- District Rule 4407, *In-Situ Combustion Well Vents* (amended May 19, 1994)

- 40 CFR Part 82, Subpart B and F *Stratospheric Ozone*

- 40 CFR Part 61, Subpart M *National Emission Standard for Asbestos*

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

A Rules Added

Title 17 CCR, Section 93115, *Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines*

Conditions 3, 5, 6, 9, 10, and 11 of the requirements for permit units S-1129-692-5, -693-5, -694-5, 698-5, -699-5, and -700-5 are based on the rule listed above and are not Federally Enforceable through Title V. However, with the exception of condition 6, these conditions also show
compliance with several SIP Approved District Rules as discussed below. Therefore, these conditions are listed as Federally Enforceable on the permit requirements.

B Rules Not Updated

District Rule 4102, Nuisance (as amended December 17, 1992)

Condition 42 of permit unit N-2369-0-2 is based on District Rule 4102 and will therefore not be discussed any further.

VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit.

A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

B. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
4) Addition of any new emissions unit which is subject to District permitting requirements.
5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

C. District Rule 2520 - Federally Mandated Operating Permits

This rule was recently amended to incorporate several administrative corrections, clarify rule language, and add procedures for implementing compliance schedules. The only amendments to this rule that will have an effect on current permit requirements are the corrections to Section 9 rule references, as described in the following table:

<table>
<thead>
<tr>
<th>Old Rule Section</th>
<th>Corrected Rule Section</th>
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Rule 2520, Section 6.4.4, "Other Changes Not Requiring Title V Permit Amendment," allowed the permittee to implement changes, including the addition of new emissions units, without triggering the permit modification or amendment requirements until the time of Title V permit renewal, provided the conditions described in Sections 6.4.4.1 through 6.4.4.2 were met.

The following permit requirements were added and/or revised to ensure compliance with this rule:
a. S-1129-24-19 – 25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH O2 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

Conditions 6, 13, 14, 15, and 25 through 30 from the current permit requirements have been revised to include the updated Section 9 rule references.

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

D. District Rule 4101 - Visible Emissions

The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere.

Per Section 5.0, a person shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- Of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of this rule.

Condition 22 of the facility wide requirements, S-1129-0-3, ensures the facility is in compliance with this rule.

E. District Rule 4306 – Boilers, Steam Generators, and Process Heaters

- Phase 3

This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour.

Section 5.1 requires that NOx and CO emissions shall not exceed the limits specified in Table 1. For units limited by a Permit to Operate to an annual heat input of 9 billion Btu/year to 30 billion Btu/year (Table 1 Category H), NOx and CO emissions shall not exceed 30 ppmv and 400 ppmv, respectively.
Per Section 5.2, each unit that is limited to less than 9 billion Btu per calendar year heat input pursuant to a Permit to Operate, the operator shall comply with the requirement of Section 7.4 and one of the following:

- 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 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown; or

- operate the unit in a manner that maintains exhaust oxygen concentrations at less than or equal to 3.00 percent by volume on a dry basis; or operate the unit in compliance with the applicable emission limits of Sections 5.1.1 or 5.1.2.

The following permit requirements ensure compliance with this rule:

a. S-1129-112-6 - 5.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR - NORTH MIDWAY

Conditions 1 through 5, and 17 through 19 of the permit requirements ensure compliance with this rule.

b. S-1129-115-6 - 7.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR AND ONE BURNER RATED AT 2.0 MMBTU/HR - NORTH MIDWAY

Conditions 1 through 5, and 17 through 19 of the permit requirements ensure compliance with this rule.
Section 5.3 states that emission limits shall not apply during start-up or shutdown provided an operator complies with the requirements that the duration of each start-up or each shutdown shall not exceed two hours, the emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown, and an operator may submit an application for a permit condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions specified in Sections 5.3.3.1 through 5.3.3.3.

Section 5.4 requires that operators of any unit subject to the applicable emission limits of the rule shall install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. The facility is proposing to implement stack concentration of NOx, CO and O2 monthly monitoring.

Per Section 5.4.4, the operator of any Category H unit listed in Section 5.1.1 Table 1 and any unit subject to Section 5.2.1 or 5.2.2 shall install and maintain an operational non-resettable, totalizing mass or volumetric flow meter in each fuel line to each unit. Volumetric flow measurements shall be periodically compensated for temperature and pressure. A master meter, which measures fuel to all units in a group of similar units, may satisfy these requirements if approved by the APCO in writing. The cumulative annual fuel usage may be verified from utility service meters, purchase or tank fill records, or other acceptable methods, as approved by the APCO.

a. S-1129-24-19: 25.2 MMBTU/HR NATURAL GAS/VAPORE RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH O2 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

Conditions 6, 9, 17, 21, 22, 36, and 40 through 42 of the permit requirements ensure compliance with this rule.

Section 6.1 requires that records required by Sections 6.1.1 through 6.1.4 shall be maintained for five calendar years and shall be made available to the APCO upon request.

6.1.1 The operator of any unit operated under the exemption of Section 4.2 shall monitor and record for each unit the cumulative annual hours of operation on each fuel other than natural gas during periods of natural gas curtailment and equipment testing. The NOx emission concentration (in ppmv or lb/MMBtu) for each unit that is operated during periods of natural gas curtailment shall be recorded. Failure to maintain records
required by Section 6.1.1 or information contained in the records that demonstrates noncompliance with the conditions for exemption under Section 4.2 will result in loss of exemption status. On and after the applicable compliance schedule specified in Section 7.0, any unit losing an exemption status shall be brought into full compliance with this rule as specified in Section 7.3.

6.1.2 The operator of any Category H unit listed in Section 5.1.1 Table 1 and any unit that is subject to the requirements of Section 5.2 shall record the amount of fuel use at least on a monthly basis for each unit, or for a group of units as specified in Section 5.4.4. On and after the applicable compliance schedule specified in Section 7.0, in the event that such unit exceeds the applicable annual heat input limit specified in Sections 5.1.1 Table 1 Category H and Section 5.2, the unit shall be brought into full compliance with this rule as specified in Section 7.4.

6.1.3 The operator of any unit subject to Section 5.2.1 or Section 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics of the unit have been performed.

6.1.4 The operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown.

Section 6.2 identifies the applicable test methods.

Section 6.3 requires that units subject to the requirements in Sections 5.1 or 5.2.3 shall be source tested to determine compliance with the applicable emission limits at least once every 12 months.

The following permit requirements ensure compliance with this rule:

a. S-1129-24-19: 25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH O2 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS REcirculation - DERBY ACRES LEASE

Conditions 11, 15, 17, 23 through 30, 32 through 35, 43, and 45 of the permit requirements ensure compliance with this rule.
F. District Rule 4320 - Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5 MMBtu/hr

The purpose of this rule is to limit emissions of oxides of nitrogen (NOx), carbon monoxide (CO), oxides of sulfur (SO₂), and particulate matter 10 microns or less (PM10) from boilers, steam generators, and process heaters. This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.

Per Section 5.1 An operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- Comply with the applicable Low-use Unit requirements of Section 5.5.

The facility will comply with section 5.3 and 5.4.

Section 5.3 Annual Fee Calculation

Per Section 5.3.1, on and after January 1, 2010, an operator, with units that will comply under Section 5.1.2, shall pay a total annual fee to the District based on the total NOx emissions from those units. That fee shall be calculated in the following manner.

- The operator shall calculate the total emissions for all units operating at a stationary source that will comply with Section 5.1.2. The total NOx emissions shall be calculated in accordance with Section 5.3.1.3.
- The total annual emissions fee shall be calculated in accordance with Section 5.3.1.4. These calculations include only the units that have been identified to comply under Section 5.1.2.
- Total Emissions (TE) Calculation

\[ \text{Total TE} = \sum E(\text{unit}) \]

Where: \( E(\text{unit}) = \text{Sum of all NOx emissions from each unit, in tons per year.} \)
\[ E(\text{unit}) = \frac{EF \ (\text{unit}) \times AFU \ (\text{Unit})}{2,000 \ \text{lb per ton}} \]

Where: \( E(\text{unit}) \) = Annual NOx emissions for each unit, in tons/year.
\( EF(\text{Unit}) \) = NOx Emission Limit for the Permit to Operate, in lb/MMBtu
\( AFU(\text{Unit}) \) = actual amount of fuel, in MMBTU, used by each unit during the previous calendar year.

- **Total Annual Fee Calculation**

  \[
  \text{Total Annual Fee} = \ (\text{Total TE} \times \text{FR}) + \text{Administrative Fee}
  \]

  Where: \( \text{FR (Fee Rate)} \) = The cost of NOx reductions, in dollars per ton, as established pursuant to Sections 7.2 and 7.6 of District Rule 9510, as adopted on December 15, 2005. Under no circumstances shall the cost of NOx reductions exceed the cost effectiveness threshold for the Carl Moyer Cost Effectiveness as established by the applicable state law.

  \[
  \text{Administrative Fee} = 4\% \times (\text{Total TE} \times \text{FR})
  \]

- The operator shall pay the total annual fee to the District, no later than July 1 of each year, for the emissions of the previous calendar year. The first payment is due to the District no later than July 1, 2010. Should July 1 fall on a day when the District is closed, the payment shall be made by the next District working day after July 1.

Per 5.3.2 Payments shall continue annually until the unit either is permanently removed from use in the San Joaquin Valley Air Basin and the Permit to Operate is surrendered or the operator demonstrates compliance with applicable NOx emissions limits shown in Table 2:
Table 2 Applicable NOx Emission Limits for Section 5.3.2

<table>
<thead>
<tr>
<th>Category</th>
<th>Date of Compliance Demonstration</th>
<th>Applicable NOx Emissions Limit from Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Units with only a Standard Schedule in Table 1.</td>
<td>Either prior to or after the Standard Compliance Deadline</td>
<td>Standard NOx Limit</td>
</tr>
<tr>
<td>B. Units with both Standard and Enhanced Schedules in Table 1.</td>
<td>Prior to the Enhanced Compliance Deadline</td>
<td>Standard NOx Limit</td>
</tr>
<tr>
<td></td>
<td>After the Enhanced Compliance Deadline</td>
<td>Enhanced NOx Limit</td>
</tr>
<tr>
<td>C. Units with both Standard and Staged Enhanced Schedules in Table 1.</td>
<td>Prior to the Initial Limit Compliance Deadline</td>
<td>Standard NOx Limit</td>
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<tr>
<td></td>
<td>After the Initial Limit Deadline but before the Final Limit Deadline</td>
<td>Initial NOx Limit then the Final NOx Limit by the applicable Compliance Deadline</td>
</tr>
<tr>
<td></td>
<td>After the Final Limit Deadline</td>
<td>Final NOx Limit</td>
</tr>
</tbody>
</table>

Per 5.3.2.1, the emissions fee for units that operate for less than the full calendar year before demonstrating compliance under Section shall be based on the actual fuel used during the portion of the calendar year prior to demonstrating that compliance or removing the unit from operation within the San Joaquin Valley Air Basin.

Per 5.3.3 Operators of units for which an annual emissions fee is provided must also certify that the units meet federal RACT control requirements at the time the annual fee is provided.

5.4 Particulate Matter Control Requirements

Per 5.4.1 to limit particulate matter emissions, an operator shall comply with one of the following requirements:

- 5.4.1.1 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall fire units exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;
- 5.4.1.2 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.4.1.3 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall install and properly
operate an emission control system that reduces SO\textsubscript{2} emissions by at least 95% by weight; or limit exhaust SO\textsubscript{2} to less than or equal to 9 ppmv corrected to 3.0% O\textsubscript{2}.

- 5.4.1.4 Notwithstanding the compliance deadlines indicated in Sections 5.4.1.1 through 5.4.1.3, refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

Per 5.4.2 Liquid fuel shall be used only during PUC quality natural gas curtailment periods, provided the requirements of Sections 4.2 and 6.1.5 are met and the fuel contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.2.

a. S-1129-24-19: 25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH O2 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

Conditions 3, 11, and 46 of the permit requirements ensure compliance with these sections.

b. S-1129-112-6: 5.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR - NORTH MIDWAY

Conditions 9, 17, and 20 of the permit requirements ensure compliance with these sections.

c. S-1129-115-6: 7.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR AND ONE BURNER RATED AT 2.0 MMBTU/HR - NORTH MIDWAY

Conditions 9, 17, and 20 of the permit requirements ensure compliance with these sections.

G. District Rule 4401 - Steam-Enhanced Crude Oil Production Wells

The purpose of this rule is to limit the VOC emissions from steam-enhanced crude oil production wells. This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.
Per Section 5.0, Section 5.1 through Section 5.4 shall be effective until December 31, 2008. Section 5.5 through Section 5.9 shall be effective on and after January 1, 2009. Therefore, Section 5.1 through 5.4 will not be discussed.

Per Section 5.5, an operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.5.1 or Section 5.5.2.

- 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. 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.
- 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.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 3 and 29 of the permit requirements ensure compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Conditions 3 and 21 of the permit requirements ensure compliance with these sections.
c. **S-1129-664-12**: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 18 and 23 of the permit requirements ensure compliance with these sections.

Section 5.6 has the determination of compliance with the leak standards. Per Section 5.6.1, an operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.8 demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility.

Section 5.6.2 contains leak standards. The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1:

- 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.
- Existence of a component with a major liquid leak as defined in Section 3.0.
- Existence of a component with a gas leak greater than 50,000 ppmv.
- Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 3.
- A minor liquid leak, or
- A minor gas leak, or
- A gas leak greater than 10,000 ppmv up to 50,000 ppmv.
Table 3 Number of Allowable Leaks

<table>
<thead>
<tr>
<th>Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th>
<th>Number of Allowable Leaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 25</td>
<td>3</td>
</tr>
<tr>
<td>26 to 50</td>
<td>6</td>
</tr>
<tr>
<td>51 to 100</td>
<td>8</td>
</tr>
<tr>
<td>101 to 250</td>
<td>10</td>
</tr>
<tr>
<td>251 to 500</td>
<td>15</td>
</tr>
<tr>
<td>More than 500</td>
<td>One (1) for each 20 wells tested with a minimum of 50 wells tested.</td>
</tr>
</tbody>
</table>

a. **S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)**

Conditions 30, 31, 33, and 34 of the permit requirements ensure compliance with these sections.

b. **S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)**

Conditions 22, 23, 25, and 26 of the permit requirements ensure compliance with these sections.

c. **S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND ChILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116**

Conditions 24, 25, 27, and 28 of the permit requirements ensure compliance with these sections.

5.7 An operator shall comply with the following operating requirements:
– An operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.6.2. 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 5.9 of this rule.

- 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.
- An operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components.

a. **S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)**

Conditions 35 and 36 of the permit requirements ensure compliance with these sections.

b. **S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)**

Conditions 27 and 28 of the permit requirements ensure compliance with these sections.

c. **S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116**

Conditions 29 and 30 of the permit requirements ensure compliance with these sections.

Per Section 5.8 unless otherwise specified, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3.
Per Section 5.8.1, except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year.

Per Section 5.8.2, 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 4 of this rule.

Per Section 5.8.3, in addition to the inspections required by Section 5.8.1, 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 4 of this rule.

Per Section 5.8.4, in addition to the inspections required by Section 5.8.1, Section 5.8.2 and Section 5.8.3, an operator shall perform the following inspections:
- An operator shall 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. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection.
- An operator shall 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 5.8.4.1, 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.

Per Section 5.8.5, an operator shall inspect all unsafe-to-monitor components during each turnaround.
Per Section 5.8.6, a 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.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 37 through 43 of the permit requirements ensure compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Conditions 29 through 35 of the permit requirements ensure compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 31 through 37 of the permit requirements ensure compliance with these sections.

Per Section 5.9.1, an operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag:
- The date and time of leak detection.
- The 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.

Per Section 5.9.2, 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, and
- 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.

Per Section 5.9.3, 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.

Per Section 5.9.4, except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.9.4.1, Section 5.9.4.2, or Section 5.9.4.3 as soon as practicable but not later than the time period specified in Table 4.
- Repair or replace the leaking component; or
- Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or
- Remove the leaking component from operation.

<table>
<thead>
<tr>
<th>Table 4 Repair Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Leak</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Gas Leaks</td>
</tr>
<tr>
<td>Minor Gas Leak</td>
</tr>
<tr>
<td>Major Gas Leak less than or equal to 50,000 ppmv</td>
</tr>
<tr>
<td>Gas Leak greater than 50,000 ppmv</td>
</tr>
<tr>
<td>Liquid Leaks</td>
</tr>
<tr>
<td>Minor Liquid Leak</td>
</tr>
<tr>
<td>Major Liquid Leak</td>
</tr>
</tbody>
</table>

Per Section 5.9.5, 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 4.

Per Section 5.9.6, the time of the initial leak detection shall be the start of the repair period specified in Table 4.

Per Section 5.9.7, 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.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 44 through 47 of the permit requirements ensure compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Conditions 36 through 39 of the permit requirements ensure compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 38 through 41 of the permit requirements ensure compliance with these sections.

Per 6.1 an operator shall maintain the records required by Sections 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request.

- 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.
- Effective January 15, 1998, a small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2.
- 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.

- Effective until December 31, 2008, the results of source tests conducted pursuant to Section 4.6.2 shall be submitted to the APCO within 60 days after the completion of the source test.
- Effective on and after January 1, 2009, the inspection log maintained pursuant to Section 6.4.
- Effective on and after January 1, 2009, 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.
- Effective on and after January 1, 2009, an operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.
- Effective on and after January 1, 2009, an operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.
- An operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. 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.
- The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing.
- Effective on and after January 1, 2007, 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.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 25, 48 through 52, and 69 through 71 of the permit requirements ensure compliance with these sections.
b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY
OPERATION WITH WELL VENT VAPOR COLLECTION PIPING
NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL
(NORTH MIDWAY)

Conditions 17, 40 through 44, and 56 through 58 of the permit
requirements ensure compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY
OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT
STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES
INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP
VESSEL, COMPRESSOR(S), COOLERS AND ChILLER(S) WITH
VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 19, 42 through 46, and 57 through 59 of the permit
requirements ensure compliance with these sections.

Section 6.2 contains this rules compliance source testing requirements.

Per Section 6.2.1, 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.

Per Section 6.2.2, 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 VCC emissions collected by a vapor collection and control
system are incinerated in fuel burning equipment, an internal combustion
engine or in a smokeless flare.

Per Section 6.2.3, if approved by EPA, ARB, and the APCO, an operator
need not comply with the annual testing requirement of Section 6.2.1 for a
vapor control system which does not have a VOC destruction device.

Per Section 6.2.4, an operator seeking approval pursuant to Section 6.2.2 or
Section 6.2.3 shall submit a written request and supporting information to the
APCO. The District shall evaluate the request and if approved by the APCO,
the District shall provide EPA and ARB with a copy of the evaluation and shall
request EPA and ARB approval. The District evaluation and the APCO
request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request.

Per Section 6.2.5, an operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17:
- Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall 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 6.1.10.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 53 through 56 of the permit requirements ensure compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Conditions 45 through 48 of the permit requirements ensure compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 47 through 50 of the permit requirements ensure compliance with these sections.

Test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.5 may be used provided that such equivalent test
methods have been previously approved, in writing, by the EPA, ARB, and the APCO.

Per Section 6.3.1, 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.

Per Section 6.3.2, 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. 6.3.3 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.

Per Section 6.3.4, effective until December 31, 2008, for the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, September 1981, entitled “Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery”.

Per Section 6.3.5, 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.
a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Conditions 57 through 60 of the permit requirements ensure compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Conditions 49 through 52 of the permit requirements ensure compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Conditions 51 through 54 of the permit requirements ensure compliance with these sections.

Per Section 6.4, effective on and after January 1, 2009, an 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, and the total number and percentage of leaking components found by component type.
- The location, type, and name or description of each leaking component and description of any unit where the leaking component is found.
- The 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.
- The 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.
The 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.
- The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.

a. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

Condition 28 of the permit requirements ensures compliance with these sections.

b. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)

Condition 20 of the permit requirements ensures compliance with these sections.

c. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116

Condition 22 of the permit requirements ensures compliance with these sections.

Per Section 6.5, effective on and after January 1, 2009, an operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.

Per Section 6.6, by June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0
of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information:

- A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule.
- Identification and description of any known hazard that might affect the safety of an inspector.
- Except for pipes, the number of components that are subject to this rule by component type.
- Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation.
- Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description).
- Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan.
- A detailed schedule of an operator’s inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team.
- A description of the training standards for personnel that inspect and repair components.
- A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary.

Per Section 6.7, by January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing
a. **S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)**

Conditions 26, 61, and 62 of the permit requirements ensure compliance with these sections.

b. **S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS AND 1 CYCLIC WELL (NORTH MIDWAY)**

Conditions 18, 53, and 54 of the permit requirements ensure compliance with these sections.

c. **S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING TO TEOR PERMIT S-1128-116**

Conditions 20, 55 and 56 of the permit requirements ensure compliance with these sections.

**H. District Rule 4601, Architectural Coatings**

This rule limits the emissions of VOC’s from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies labeling requirements, coatings thinning recommendations, and storage requirements.

The following changes were included in the latest rule amendment that resulted in adding new permit requirements and/or revising current permit requirements:

- The tables outlining the VOC content of different specialty coatings has been largely replaced with the Table of Standards in Section 5.0.
- New labeling, reporting, test methodology and other requirements have been incorporated into the rule in order to allow ARB to administer the Averaging Program as detailed in Section 8.0.
Conditions 23, 24, and 25 of the facility wide requirements, S-1129-0-3, ensure the facility is in compliance with this rule.

I. District Rule 4623 – Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

Per Section 4.4, tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.5 psia are exempt from all other requirements of the rule except for complying with the following provisions:

- TVP and API Gravity Testing provisions pursuant to Section 6.2,
- Recordkeeping provisions pursuant to Section 6.3.6,
- Test Methods provisions pursuant to Section 6.4, and
- Compliance schedules pursuant to Section 7.2.

a. S-1129-225-8: 420,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #10GM5 STA. L

Conditions 4 through 12 of the permit requirements ensure compliance with this rule.

b. S-1129-275-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, STA. 1 T-5 WASH TANK

Conditions 1 through 9 of the permit requirements ensure compliance with this rule.

c. S-1129-277-4: 21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, DRAIN TANK

Conditions 1 through 9 of the permit requirements ensure compliance with this rule.

d. S-1129-278-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, REJECT TANK

Conditions 1 through 9 of the permit requirements ensure compliance with this rule.
e. S-1129-280-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, LACT TANK

Conditions 1 through 9 of the permit requirements ensure compliance with this rule.

J. District Rule 4702 – Internal Combustion Engines - Phase 2

This analysis is based on the latest revision (August 18, 2011) which has not been SIP approved. However, this rule only impacts the emergency IC engine at this facility, and these requirements are identical to the latest SIP approved revision (January 18, 2007). The only change is Section 5.7 has been moved to Section 5.9. Therefore, compliance with this revision ensures compliance with the SIP approved January 18, 2007 revision. No further stringency analysis is required.

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

Per Section 4.2 Except for the requirements of Section 5.7 and Section 6.2.3, the requirements of this rule shall not apply to:

- An emergency standby engine as defined in Section 3.0 of this rule, and provided that it is operated with a nonresettable elapsed operating time meter. In lieu of a nonresettable time meter, the owner of an emergency engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer’s instructions.

- An internal combustion engine that is operated no more than 200 hours per calendar year as determined by an operational nonresettable elapsed operating time meter and provided the engine is not used to perform any of the functions specified in Section 4.2.2.1 through Section 4.2.2.3 below. In lieu of a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer’s instructions.
- To generate electrical power that is either fed into the electrical utility power grid or used to reduce electrical power purchased by a stationary source,
- To generate mechanical power that is used to reduce electrical power purchased by a stationary source, or
- In a distributed generation application.


Conditions 3, 7, 8, 9, and 11 of the permit requirements ensure compliance with this rule.

K. District Rule 4703 – Stationary Gas Turbines

This rule applies to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour.

Section 5.1.2 requires the owner or operator to meet the applicable emission limits of Table 5-2, Tier 2 NOx Compliance Limits.

Section 5.1.3 requires the owner or operator to meet the applicable emission limits of Table 5-3, Tier 3 NOx Compliance Limits, by the compliance date in Section 7.3 of this rule. Per Section 7.3 the units at this facility are not required to meet the requirements of this section till October 1, 2011 or within 90 days of a major overhaul whichever comes first.

Section 5.2 requires the owner or operator to meet 200 ppmvd CO @ 15% O2.

Section 5.3 states that on or after the compliance due date the applicable emission limits will not be applicable during a transitional operational period. Section 3.33 defines the transitional operational period as any of the bypass transition period, primary re-ignition period, reduced load period, startup, or shutdown.

a. S-1129-47-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #1 - MCKITTRICK

Conditions 8, 27, and 47 of the requirements for this permit ensure compliance with this section.
b. S-1129-48-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #2 - MCKITTRICK

Conditions 8, 27, and 47 of the requirements for this permit ensure compliance with this section.

c. S-1129-49-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #3 - MCKITTRICK

Conditions 8, 27, and 47 of the requirements for this permit ensure compliance with this section.

d. S-1129-53-11: 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #7

Conditions 7, 30, 31, and 47 of the requirements for this permit ensure compliance with this section.

e. S-1129-54-12: 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #8

Conditions 7, 30, 31, and 47 of the requirements for this permit ensure compliance with this section.

Section 6.1 requires that the owner or operator of any existing stationary gas turbine system, unless exempted in Section 6.1.5, shall submit, to the APCO for approval, an emissions control plan of all actions, including a schedule of increments of progress, which 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. This has already been satisfied.

Section 6.2 requires the owner or operator, for the turbines with exhaust gas NOx control devices, to either install, operate, and maintain continuous emissions monitoring system (CEMS) for NOx and O2, or install and maintain one or more of the pre-approved alternate monitoring methods given in Sections 6.2.1.1 through 6.2.1.7. The facility has chosen to use a pre-approved alternate monitoring method.

Section 6.2.4 requires the owner or operator to maintain all records for a period of five year from the date of data entry and shall make such records available to the APCO upon request. Conditions will be included to satisfy compliance with this section.
Section 6.2.5 requires the owner or operator to submit information correlating the control system operating parameters to the associated NO\textsubscript{X} output. This information may be used by the APCO to determine compliance when there is no continuous emission monitoring system for NO\textsubscript{X} available or when the continuous emission monitoring system is not operating properly.

Section 6.2.6 requires the owner or operator to maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used (liquid/gas).

Section 6.2.8 requires that the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown.

Section 6.3.1 requires that the owner or operator of any stationary gas turbine systems subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NO\textsubscript{X} and CO concentrations. Section 6.3.3 requires the owner or operator of any unit with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off.

Section 6.4 identifies various test methods to measure NO\textsubscript{X}, CO, O\textsubscript{2}, HHV and LHV of gaseous fuels.

a. **S-1129-47-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #1 - MCKITTRICK**

   Conditions 6, 7, 9, 12, 17, 18, 19, and 44 of the requirements for this permit ensure compliance with this section.

b. **S-1129-48-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #2 - MCKITTRICK**

   Conditions 6, 7, 9, 12, 17, 18, 19, and 44 of the requirements for this permit ensure compliance with this section.

c. **S-1129-49-12: 3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #3 - MCKITTRICK**

   Conditions 6, 7, 9, 12, 17, 18, 19, and 44 of the requirements for this permit ensure compliance with this section.
d. S-1129-53-11: 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #7

Conditions 5, 6, 8, and 11 through 14 of the requirements for this permit ensure compliance with this section.

e. S-1129-54-12: 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #8

Conditions 5, 6, 8, and 11 through 14 of the requirements for this permit ensure compliance with this section.

Section 7.3 requires that all owners or operators shall demonstrate and maintain compliance with the applicable provisions of Sections 5.0 and 6.0 in accordance with the compliance schedule in this section. The facility has submitted and is operating within their latest ECP submitted to the District on January 5, 2011

L. District Rule 8011 – General Requirements

The purpose of Regulation VIII (Fugitive PM$_{10}$ Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM$_{10}$) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM$_{10}$ Nonattainment Areas. These rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM$_{10}$ and particles larger than PM$_{10}$. Controlling fugitive dust missions when visible emissions are detected will not prevent all PM$_{10}$ emissions, but will substantially reduce PM$_{10}$ emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM$_{10}$ Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

*Conditions 29 through 34 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.*
M. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 29 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

N. District Rule 8031 – Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit VDE to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 30 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

O. District Rule 8041 – Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.
This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Condition 31 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

P. District Rule 8051 – Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas.

This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 32 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

Q. District Rule 8061 – Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
Condition 33 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

R. District Rule 8071 – Unpaved Vehicle/Equipment Traffic Area

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria.

This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

Condition 34 of the facility-wide requirements S-1129-0-2 will ensure compliance with these requirements.

S. 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines

The provisions of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10 million Btu per hour. Section 60.334 and 60.335 of this Subpart was amended February 24, 2006.

The amended provisions, 40 CFR 60.334(c), (e), and (f) clarify that the monitoring methods are options rather than requirements for turbines that do not use water or steam to control NOx emissions. In addition, the introductory text of 46 CFR 60.334(j), 60.334(j)(1)(iv), and 40 CFR 60.335(b)(8) were also revised to reflect the amended provisions of 40 CFR 60.334(c), (e), and (f).

Permit units S-1129-47-12, -48-12, -49-12, -53-11, and -54-12 use water/steam injection to control NOx emissions. Therefore, the amended provisions of this subpart are not applicable to these gas turbines. The turbines will continue to be in compliance with this subpart and no further discussion is necessary.

T. 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

This subpart contains standards that apply to manufacture, owner and operator of stationary spark ignited internal combustion engines. Section 60.4230 lists who is subject to this subpart.
Per section 60.4230(a) the provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Parts (1) through (3) applies to manufacturers of engines. Since this facility did not manufacture the engines this section does not apply to the engines at this facility and will not be discussed any further.

Per Section 60.4230 (a)(4) this rule applies to owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

Per Section 60.4230 (a)(5) owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.

The engines at this facility permit units S-1129-692-5, -693-5, 694-5, -698-5, -699-5, and -700-5 did not commence construction, were modified or reconstructed after June 12, 2006. Therefore per section 60.4230(a)(4) and (5), this subpart does not apply to these engines and will not be discussed any further.

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

Per section 63.6585 a facility is subject to this subpart if they own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

This facility is an area source of HAP. Therefore the engines at this facility are subject to the requirements of this subpart.
Per Section 63.6590 this subpart applies to each affected source as discussed below.

(a) **Affected source.** An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) **Existing stationary RICE.**

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) **New stationary RICE.**

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) **Reconstructed stationary RICE.**

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

The remainder of Section 63.6590 list Stationary RICE subject to limited requirements. None of the engines at this facility meet any of the requirements of this section to be allowed to meet limited requirements. Therefore, the remainder of Section 63.6590 will not be discussed.

a. S-1129-692-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.

b. S-1129-693-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.

c. S-1129-694-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.

d. S-1129-698-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.

e. S-1129-699-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.
f. S-1129-700-5: 140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

This unit was not constructed, modified or reconstructed after June 12, 2006 and is therefore considered an existing stationary RICE.

Section 63.6595 contains the date in which an affected source is required to be in compliance with the emissions and operating limitations.

Per Section 63.6595(a)(1) if you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.


Conditions 11 and 14 through 20 of the permit requirements will ensure compliance with these requirements.

V. 40 CFR Part 64 CAM

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

1) the unit must have an emission limit for the pollutant;
2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
3) the unit must have a pre-control potential to emit of greater than the major source thresholds.
a. S-1129-24-19: 25.2 MM BTU/HR NATURAL GAS/VAPOUR RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH O2 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

This permit unit has emissions limits for SOx, PM10, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for SOx, PM10, CO, and VOC.

This permit may be subject to CAM for NOx since there is a NOx limit, and it has add-on controls in the form of FGR. However, the pre-control NOx potential to emit is less than the major source threshold of 20,000 pounds NOx/year as shown below. Therefore, this unit is not subject to CAM.

The natural gas controlled-low NOx emission factor is 50 lb/MMscf or 0.049 lb/MMBtu (AP-42, 1.4-5, July 1998). The unit's heat input is limited by permit condition to 30 billion Btu per calendar year.

0.049 lb NOx/MMBtu x 30,000 MMBtu/year = 1,470 lbs NOx/year

b. S-1129-47-12, -48-12, -49-12, -53-11, -54-12, and -55-11: 3.5 MW GAS TURBINE COGENERATION

These units are not subject to CAM since they are not equipped with any add-on controls.

c. S-1129-112-6: 5.4 MM BTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MM BTU/HR - NORTH MIDWAY

This unit is not subject to CAM since it is not equipped with any add-on controls.

d. S-1129-115-6: 7.4 MM BTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MM BTU/HR AND ONE BURNER RATED AT 2.0 MM BTU/HR - NORTH MIDWAY

This unit is not subject to CAM since it is not equipped with any add-on controls.
e. S-1129-225-8: 420,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #10GM5 STA. L

This unit is not subject to CAM since it is not equipped with any add-on controls.

f. S-1129-275-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, STA. 1 T-5 WASH TANK

This unit is not subject to CAM since it is not equipped with any add-on controls.

g. S-11279-277-4: 21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, DRAIN TANK

This unit is not subject to CAM since it is not equipped with any add-on controls.

h. S-1129-278-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, REJECT TANK

This unit is not subject to CAM since it is not equipped with any add-on controls.

i. S-1129-280-4: 126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, LACT TANK

This unit is not subject to CAM since it is not equipped with any add-on controls.

j. S-1129-385-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

This permit unit is not subject to CAM since vapor control system is a collection system rather than a control device.
k. S-1129-386-17: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS, 1 CYCLIC WELL AND WET LACT SEPARATOR VESSEL/PERMIT S-1129-867 (NORTH MIDWAY)

This permit unit is not subject to CAM since vapor control system is a collection system rather than a control device.


These units are not subject to CAM since they are not equipped with any add-on controls.

m. S-1129-864-12: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING FROM ‘-865 AND ‘-866; AND TO TEOR PERMIT S-1128-116

This permit unit is not subject to CAM since vapor control system is a collection system rather than a control device.

n. S-1129-865-3: 1110 BBL GAS/LIQUID SEPARATOR V-100 VENTED TO TEOR SYSTEM S-1129-864

This permit unit is not subject to CAM since vapor control system is a collection system rather than a control device.

o. S-1129-866-3: 906 BBL GAS/LIQUID SEPARATOR VESSEL V-200 VENTED TO TEOR SYSTEM S-1129-864

This permit unit is not subject to CAM since vapor control system is a collection system rather than a control device.
IX. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

The applicant does not propose to use any model general permit templates.

X. PERMIT CONDITIONS

See Attachment A - Renewed Title V Operating Permit.

XI. ATTACHMENTS

A. Renewed Title V Operating Permit
B. Previous Title V Operating Permit
C. Detailed Facility List
D. EPA and Facility Comment/District Response
ATTACHMENT A

Renewed Title V Operating Permit
Permit to Operate

FACILITY: S-1129

LEGAL OWNER OR OPERATOR: CHEVRON U S A INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

FACILITY LOCATION: HEAVY OIL WESTERN
CA

FACILITY DESCRIPTION: OIL AND NATURAL GAS PRODUCTION

EXPIRATION DATE: 02/29/2016

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. 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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

2. 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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

3. 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

4. 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 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit

5. 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, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit

6. 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

7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

8. The operator shall maintain records of required monitoring 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

9. 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

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.

Facility Name: CHEVRON U.S.A INC
Location: HEAVY OIL WESTERN, CA
S-1129-0-2; Jan 18 2012 3:4PM - REFURMJ
10. 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

11. 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 section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

12. 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

13. 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

14. 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

15. 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

16. 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

17. 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

18. 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, 9.13.2.1] Federally Enforceable Through Title V Permit

19. 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

20. 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

21. 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

22. 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 (02/17/05). 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, and County Rules 401 (in all eight counties in the San Joaquin Valley)] 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.
23. 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 Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

26. 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, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit

27. 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

28. 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

29. 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 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit

30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit

31. 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 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit

32. 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 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit

33. 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 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit

35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.145, 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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL WESTERN, CA
S-1129-0-2, Apr 18 2012 3:41PM -- REV 022

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
36. 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

37. 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

38. 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

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2000, 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); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

42. All permits for facilities S-1128, S-1129, S-1141, S-1549, and S-2592 are included in the Chevron USA, Inc. Heavy Oil Western stationary source. [District NSR Rule] Federally Enforceable Through Title V Permit

43. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit

44. For vapor recovery systems connected to tanks with pressure relief valves, 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

45. For tanks equipped with pressure relief valves, operator shall inspect pressure relief valves for fugitive leaks annually in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

46. On June 30, 2002, the initial Title V permit was issued, the reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin July 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of reporting period. [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-1129-24-19
EXPIRATION DATE: 02/29/2016

SECTION: NE34  TOWNSHIP: 30S  RANGE: 22E

EQUIPMENT DESCRIPTION:
25.2 MMBTU/HR NATURAL GAS/VAPO RECOVERY GAS FIRED C.F. NATCO STEAM GENERATOR (HSG #60, DIS# 20754-66) WITH 02 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

PERMIT UNIT REQUIREMENTS

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

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1; 4301, 5.1 & 5.2.3; and 4320, 5.4] Federally Enforceable Through Title V Permit

4. 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. 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 and Kern County Rule 407] Federally Enforceable Through Title V Permit

5. Sulfur compound 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; District Rules 2520, 9.3.2 and 4406] Federally Enforceable Through Title V Permit

6. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.1.2] 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), 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

8. 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

9. A non-resettable, totaling mass or volumetric fuel flow meter to measure the amount of fuel gas and vapor recovery gas combusted in the steam generator shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306, 5.4.4] 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. 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

11. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, 4306, 6.1.2; and 4320, 6.0] Federally Enforceable Through Title V Permit

12. 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 1070]

13. 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 ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC 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

14. 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

15. 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 4306, 6.2.1] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup and shutdown, shall not exceed any of the following: PM10: 0.010 lb/MMBtu; SOx (as SO2): 1.768 lb/MMBtu or 200 lb/hr, NOx (as NO2): 0.0365 lb/MMBtu or 3 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, or CO: 0.0355 lb/MMBtu or 48 ppmv @ 3% O2. [District Rules 4301, 4305, 4406, NSR, and 4306, 5.1] Federally Enforceable Through Title V Permit

17. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rule 4305, 5.5.6 and 4306, 5.3 & 6.1.4] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time 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. Shutdown is defined as the period of time 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 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

19. 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

20. 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

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306, 5.5.1] 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.
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. [District Rules 4305 and 4306, 5.5.2] 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. 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 2201, 4305, 6.3.1, and 4306, 6.3.1] Federally Enforceable Through Title V Permit

24. 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 on-going NOx and CO testing requirement. [District Rules 4305, 4306, 6.3.2; and 2520] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx 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 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source for NOx 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 Rules 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx 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 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

29. 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 such that in three years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

30. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct 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 2520, 9.3.2, 4305 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

31. 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.
32. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2] Federally Enforceable Through Title V Permit

33. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306, 6.2] Federally Enforceable Through Title V Permit

35. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

36. 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, 5.5.5] Federally Enforceable Through Title V Permit

37. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

38. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. 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 and 4306, 5.4] Federally Enforceable Through Title V Permit

41. 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

42. 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, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
43. 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, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

44. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit 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 non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

45. 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

46. 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, 5.3] Federally Enforceable Through Title V Permit

47. 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, 6.0] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.1 & 6.3.3] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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.
11. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334(b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334(a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703, 6.2.1 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Cogeneration unit includes 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOX (as SO2): 0.16 lb/hr; NOX (as NO2): 30 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 29 ppmvd @ 15% O2. [District NSR Rule and 4703, 5.1 & 5.2] Federally Enforceable Through Title V Permit

28. 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. [District Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOX (as SO2): 3.8 lb/day; NOX (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 1081] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703, 6.4] Federally Enforceable Through Title V Permit

45. Start-up shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

46. Shutdown shall be defined as the period of time 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] 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-1129-48-12
SECTION: 18 TOWNSHIP: 30S RANGE: 22E
EQUIPMENT DESCRIPTION:
3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #2 - MCKITTRICK

PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.1] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.6] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334(b), and (o)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332(a) and (b); 60.333(a) and (b); 60.334(a), (b), and (c)(1); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOX concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703, 6.2.1 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Cogeneration unit includes 48.7 MMBtu/hr Allison (nominal rating), model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx (as NO2): 30 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 29 ppmvd @ 15% O2. [District NSR Rule and District Rule 4703, 5.1 & 5.2] Federally Enforceable Through Title V Permit

28. 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. [District Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day; NOx (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart A 60.2, District Rule 4702, and District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 1081] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703, 6.4] Federally Enforceable Through Title V Permit

45. Start-up shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

46. Shutdown shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.1 & 6.3.2] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.6] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703, 6.2 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Cogeneration unit includes 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx (as NO2): 30 ppmv @ 15% O2; VOC: 1.65 lb/hr; and CO: 29 ppmv @ 15% O2. [District NSR Rule and District Rule 4703, 5.1 & 5.2] Federally Enforceable Through Title V Permit

28. 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. [District Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day; NOx (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 1081] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703, 6.4] Federally Enforceable Through Title V Permit

45. Start-up shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

46. Shutdown shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/scf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

6. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

7. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

8. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

9. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The 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

11. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703, 6.2.1 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

15. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

16. 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 NSPS NOx 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

17. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

18. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles, Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer's plans and specifications. [District NSR Rule] Federally Enforceable 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. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmvd @ 15% O2. [District Rules 2201 and 4703, 5.1] Federally Enforceable Through Title V Permit

31. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmvd NO2 @ 15% O2. [District Rule 4703, 5.2]

32. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

34. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

36. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule] Federally Enforceable Through Title V Permit

38. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Annual compliance with GTE NOx and CO emission limits and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 1081] Federally Enforceable Through Title V Permit

40. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

41. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

42. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). 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.
43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Start-up shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

46. Shutdown shall be defined as the period of time 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] 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-1129-54-12
SECTION: 34 TOWNSHIP: 30S RANGE: 22E
EXPIRATION DATE: 02/29/2016

EQUIPMENT DESCRIPTION:
3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #8

PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

6. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

7. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

8. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

9. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The 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

11. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 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.
12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703, 6.2.1 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

15. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

16. 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 NSPS NOx 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

17. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

18. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles. Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Turbine lube oil tank shall vent only through CECO Model #STTIR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Generator gearbox lube oil tank shall vent only through CECO Model #STTIR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer's plans and specifications. [District NSR Rule] Federally Enforceable 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. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmvd @ 15% O2. [District Rules 2201 and 4703, 5.1] Federally Enforceable Through Title V Permit

31. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmvd NO2 @ 15% O2. [District Rule 4703, 5.2]

32. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40CFR 60.333(a)] Federally Enforceable Through Title V Permit

34. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

36. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule] Federally Enforceable Through Title V Permit

38. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Annual compliance with GTE NOx and CO emission limits and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 1081] Federally Enforceable Through Title V Permit

40. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

41. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

42. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). 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.
43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. Start-up shall be defined as the period of time 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] Federally Enforceable Through Title V Permit

46. Shutdown shall be defined as the period of time 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] Federally Enforceable Through Title V Permit
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]

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703]

3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703]

4. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit.

5. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/S100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

7. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.333(d)] Federally Enforceable Through Title V Permit

8. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

9. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

10. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

11. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703] Federally Enforceable Through Title V Permit

12. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

15. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

16. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

18. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

19. 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 NSPS NOx 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

20. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

21. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles, Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable 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. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer's plans and specifications. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmvd @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

34. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmvd NO2 @ 15% O2. [District Rule 4703]

35. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

36. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

37. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

39. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

40. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

41. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. Annual compliance with GTE NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

43. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

44. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mw-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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
45. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Maximum annual heat input of the unit shall be less than 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

2. 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, and 4306] Federally Enforceable Through Title V Permit

3. 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). [District Rule 4306] Federally Enforceable Through Title V Permit

4. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4306] Federally Enforceable Through Title V Permit

5. The permittee shall monitor, at least on a monthly basis, fluid temperature and fluid interface level or other operational characteristics recommended by the unit manufacturer. 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

6. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

7. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1; 4301, 5.1 & 5.2.3; and 4320, 5.4] Federally Enforceable Through Title V Permit
10. 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

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 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. 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, 9.3.2] 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, 4306, and 4320, 6.0] Federally Enforceable Through Title V Permit

18. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

20. 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, 5.3] Federally Enforceable Through Title V Permit

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

1. The permittee shall notify the District at least seven calendar days prior to the designation of this permit unit as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit

2. When designated as a dormant emissions unit the fuel supply line shall be physically disconnected from the emissions unit. [District Rule 4307] Federally Enforceable Through Title V Permit

3. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing, tuning, or monitoring requirements otherwise required by this permit. [District Rule 4307] Federally Enforceable Through Title V Permit

4. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of the dormant emissions unit. [District Rule 1081] Federally Enforceable Through Title V Permit

5. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

6. Upon recommencing operation 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 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown [District Rule 4307 5.2.1] Federally Enforceable Through Title V Permit

7. Upon recommencing operation, copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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. Upon recommencing operation, 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. Upon recommencing operation, particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] 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.
10. Upon recommencing operation, 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

11. 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. 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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. Upon recommencing operation, 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, 9.3.2] Federally Enforceable Through Title V Permit

14. Upon recommencing operation, 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

15. Upon recommencing operation, excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Upon recommencing operation, heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Upon recommencing operation, permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305] 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-1129-114-6            EXPIRATION DATE: 02/29/2016
SECTION: NW02   TOWNSHIP: 31S   RANGE: 22E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 9.0 MMBTU/HR GAS-FIRED HEATER TREATER WITH TWO BURNERS EACH RATED
AT 4.5 MMBTU/HR - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. No modification(s) 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. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit

3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rules 2010 and 4306] Federally Enforceable Through Title V Permit

4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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

6. 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

7. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

8. 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/MBtu 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

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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

11. 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, 9.3.2] 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, 9.3.2] Federally Enforceable Through Title V Permit

13. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305] 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-1129-115-6
SECTION: NW02 TOWNSHIP: 31S RANGE: 22E
EXPIRATION DATE: 02/29/2016

EQUIPMENT DESCRIPTION:
7.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR AND ONE BURNER RATED AT 2.0 MMBTU/HR - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. Maximum annual heat input of the unit shall be less than 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

2. 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, and 4306] Federally Enforceable Through Title V Permit

3. 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). [District Rule 4306] Federally Enforceable Through Title V Permit

4. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4306] Federally Enforceable Through Title V Permit

5. The permittee shall monitor, at least on a monthly basis, fluid temperature and fluid interface level or other operational characteristics recommended by the unit manufacturer. 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

6. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

7. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1; 4301, 5.1 and 5.2.3; 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. 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

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 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. 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, 9.3.2] 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, 4306, and 4320, 6.0] Federally Enforceable Through Title V Permit

18. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

20. 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, 5.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Host vapor pressure (ROC - C2) of any organic liquid introduced to the tank shall not exceed 0.23 psia. [District Rule 4623, and District NSR Rule] Federally Enforceable Through Title V Permit

2. Daily volume of liquids introduced into tank shall not exceed 16,000 barrels on any given day. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Annual volume of liquids introduced into tank shall not exceed 960,000 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2 of District Rule 4623, 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] Federally Enforceable Through Title V Permit

5. The API gravity of crude oil or petroleum distillate shall be determined 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 by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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" (Host Method), as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

8. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

9. Permittee shall submit 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

10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity, and throughput. [District Rule 4623, 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.
11. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-275-4
EXPIRATION DATE: 02/29/2016
SECTION: NW02 TOWNSHIP: 31S RANGE: 22E
EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, STA. 1 T-5 WASH TANK

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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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.
San Joaquin Valley
Air Pollution Control District

SECTION: NW02  TOWNSHIP: 31S  RANGE: 22E
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, DRAIN TANK

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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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 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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-280-4
EXPIRATION DATE: 02/29/2016
SECTION: NW02 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, LACT TANK

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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-385-12
SECTION: SW17   TOWNSHIP: 30S   RANGE: 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

3. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with 99% vapor control or if the wells are idle. [District Rules 2201 and 4401, 5.4] Federally Enforceable Through Title V Permit

4. Fugitive VOC emissions from TEOR system including condensate collection and handling shall not exceed 29.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities, or shown to be handling produced fluids with an API gravity less than 30 degrees or fluid streams containing more than 50% water (by weight) or with a VOC content of 10% (by weight) or less. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Components to be screened and counted for determining compliance with fugitive VOC limit listed above shall be identified and categorized according to the appropriate fluid types (gas or water/oil) in Table 2-4 of the EPA's "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and the following component types: valves, fittings, threaded connections, open-ended lines, pumps, compressors, pressure relief devices, pipes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The VOC content of the casing gas shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum amount of gas combusted in flare shall not exceed 21.6 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx (as NO2): 0.068 lb/MMBtu; PM10: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur emissions from flare shall not exceed 49.4 lb SO2/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. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 25% or less VOC by weight for eight consecutive quarterly samplings, 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] Federally Enforceable Through Title V Permit

12. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

13. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limit. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The flare shall be operated according to the manufacturer’s specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Operation shall include condenser vessel, air-cooled heat exchanger, 500 barrel condensate vessel and 0.9 MMBtu/hr Sur-Lite Model 20 SLF enclosed flare. [District Rule 2201] Federally Enforceable Through Title V Permit

16. 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

17. All vapors from condenser shall be incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

18. A flame or 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 shall be operational. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

19. Flame temperature of the flare shall be greater than 1200 degrees F or another temperature established during source testing which documents compliance with all emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Flare shall be equipped with operational fuel meters to measure quantity of PUC quality makeup gas and TEOR gas. incinerated. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the flare is fired on noncertified gaseous fuel (including TEOR gas) 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, 9.3.2] 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 (including TEOR gas) 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Sulfur content of the combusted gas shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H2S and Mercaptans. H2S concentration (ppmv) of the gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Source test results shall be submitted to the District within 60 days after collection. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

26. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] 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.
27. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

28. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification 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 first; 7) The method(s) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

29. Steam-enhanced crude oil production well vents shall be closed, except when 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, and the front line production equipment downstream of the wells that carry produced fluids be connected to a VOC collection and control system. Alternatively, steam-enhanced crude oil production well vents shall be open and the well vents connected to a VOC collection and control system. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

30. The operator shall be in violation of Rule 4401 if any District inspection, or operator inspection conducted as a requirement of this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1] Federally Enforceable Through Title V Permit

31. There shall not be 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.6.2.1] Federally Enforceable Through Title V Permit

32. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

33. There shall be no components with major liquid leaks or with gas leaks greater than 50,000 ppmv. [District Rule 4401, 5.6.2.2 and 5.6.2.3] Federally Enforceable Through Title V Permit

34. There shall not be more minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv than the following: 3 leaks for 1 - 25 wells, 6 leaks for 26 - 50 wells, 8 leaks for 51 - 100 wells, 10 leaks for 101 - 250 wells, 15 leaks for 251 - 500 wells, and 1 leak for each 20 wells (with a minimum of 50 wells test) for more than 500 wells connected to a VOC collection and control system. [District Rule 4401, 5.6.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wise Permit to Operate.
35. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

36. 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 and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

37. Except for pipes and unsafe-to-monitor components, all other components shall be inspected pursuant to the requirements of section 6.3.3 at least once every year. [District Rule 4401, 5.8.1] Federally Enforceable Through Title V Permit

38. All pipes shall be visually inspected 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.2] Federally Enforceable Through Title V Permit

39. The 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. [District Rule 4401, 5.8.3.1] Federally Enforceable Through Title V Permit

40. 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.3.2] Federally Enforceable Through Title V Permit

41. The operator shall 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. The operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4.1] Federally Enforceable Through Title V Permit

42. The operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. The operator shall inspect a component, other than PRDs, that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. The operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.4.2, 5.8.4.3, 5.8.5] Federally Enforceable Through Title V Permit

43. A 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, 5.8.6] Federally Enforceable Through Title V Permit

44. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.1, 5.9.2] 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.
45. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. Except for leaking critical components or leaking essential components, if the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has an overall VOC collection and destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rule 4401, 5.9.3, 5.9.4] Federally Enforceable Through Title V Permit

46. The operator shall repair minor gas leaks within 14 days, major gas leaks which less than or equal to 50,000 ppmv within 5 days, major gas leaks which are greater than 50,000 ppmv within two days, minor liquid leaks within 3 days, and major liquid leaks within 2 days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4401, 5.9.4, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

47. If a leaking component is an essential component or a critical component which cannot be shut down immediately for repairs, and after being minimized still exceeds the applicable leak standard, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround or no later than one year from the date of original leak detection, which ever is earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

48. 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

49. 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. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

50. The operator shall maintain copies of training records and of the latest APCO-approved Operator Management Plan (OMP) at the facility and make such available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.7, 6.1.8] Federally Enforceable Through Title V Permit

51. The results of periodic gauge tank TVP testing conducted shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

52. 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. The 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, 6.1.11] Federally Enforceable Through Title V Permit

53. Except as elsewhere in this permit, the 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. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

54. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual control efficiency testing requirement if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare, or if the vapor collection and control does not have a VOC destruction device. [District Rule 4401, 6.2.2, 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.
55. An operator seeking approval a waiver of the annual control efficiency testing requirement shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401, 6.2.4] Federally Enforceable Through Title V Permit

56. The operator shall conduct TVP testing of each gauge tank, as defined by Section 3.17 of Rule 4401, 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 Rule 4623 (Storage of Organic Liquids). [District Rule 4401, 6.2.5] 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, 6.3.5] Federally Enforceable Through Title V Permit

61. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
62. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description (the results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the OMP); a detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

63. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

64. Compliance with permit conditions in the Title V permit shall be deemed compliance with subsumed Kern County Rule 404. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

65. Permittee shall maintain records of number and type of fugitive emissions components and calculated fugitive emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

66. Permittee shall keep accurate records of daily heat input to the flare in MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

67. Permittee shall maintain with this permit a current listing of all steam enhanced wells connected to the casing collection system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

68. Daily records of TEOR gas and makeup gas consumed by flare shall be retained on site and shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

69. Records of leaks detected during annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

70. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

71. All records required by this permit shall be maintained and retained for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rule 4401, 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. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

3. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with 99% vapor control or if the wells are idle. [District Rules 2201 and 4401, 5.5] Federally Enforceable Through Title V Permit

4. Fugitive emissions from TEOR system including condensate collection and handling shall not exceed 118.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities, or shown to be handling produced fluids with an API gravity less than 30 degrees or fluid streams containing more than 50% water (by weight) or with a VOC content of 10% (by weight) or less. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Components to be screened and counted for determining compliance with fugitive VOC limit listed above shall be identified and categorized according to the appropriate fluid types (gas or water/oil) in Table 2-4 of the EPA's "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and the following component types: valves, fittings, threaded connections, open-ended lines, pumps, compressors, pressure relief devices, pipes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems. [District Rule 2201] Federally Enforceable Through Title V Permit

7. TEOR operation with well vent vapor control system including: gas/liquid separators, water-cooled heat exchangers, fin-fan cooling towers, vacuum pumps with separators, liquid transfer pumps, casing gathering line, liquid traps and pumps, compressors, fin fan heat exchangers, 2-phase separators, and non-condensible gas line with liquid traps to existing incineration steam generator S-1129-24 or DOGGR approved vapor disposal wells. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Operation shall include condensate piping to existing crude oil wash tank. [District NSR Rule] Federally Enforceable Through Title V Permit

9. Gas/liquid separators and condensate drums/tanks and all other equipment used to handle or store condensate shall be enclosed and shall vent only to vapor control system. [District NSR Rule] Federally Enforceable 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. Water/VOC condensate from gas/liquid separators and condensate drums shall be pumped only to production manifold or to production facilities equipped with an operating vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Condensate storage/production wash tank shall be operated at a constant fluid level. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Collected vapors shall be disposed of in District approved incineration devices as listed on this permit or in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall make copies of DOGGR approval for injection wells and make such documentation readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall document Department of Oil & Gas Geothermal Resources approval for vapor disposal wells prior to injection of vapors. [District Rules 4401 and NSR] Federally Enforceable Through Title V Permit

14. Permittee shall cease injection vapors & notify the District immediately if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The VOC content of the casing gas shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 25% or less VOC by weight for eight consecutive quarterly samplings, 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] Federally Enforceable Through Title V Permit

17. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

18. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

19. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

20. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification 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 first; 7) The method(s) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
21. Steam-enhanced crude oil production well vents shall be closed, except when 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, and the front line production equipment downstream of the wells that carry produced fluids be connected to a VOC collection and control system. Alternatively, steam-enhanced crude oil production well vents shall be open and the well vents connected to a VOC collection and control system. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. The operator shall be in violation of Rule 4401 if any District inspection, or operator inspection conducted as a requirement of this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1] Federally Enforceable Through Title V Permit

23. There shall not be 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.6.2.1] Federally Enforceable Through Title V Permit

24. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

25. There shall be no components with major liquid leaks or with gas leaks greater than 50,000 ppmv. [District Rule 4401, 5.6.2.2 and 5.6.2.3] Federally Enforceable Through Title V Permit

26. There shall not be more minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv than the following: 3 leaks for 1 - 25 wells, 6 leaks for 26 - 50 wells, 8 leaks for 51 - 100 wells, 10 leaks for 101 - 250 wells, 15 leaks for 251 - 500 wells, and 1 leak for each 20 wells (with a minimum of 50 wells test) for more than 500 wells connected to a VOC collection and control system. [District Rule 4401, 5.6.2.4] Federally Enforceable Through Title V Permit

27. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

28. 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 and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

29. Except for pipes and unsafe-to-monitor components, all other components shall be inspected pursuant to the requirements of section 6.3.3 at least once every year. [District Rule 4401, 5.8.1] Federally Enforceable Through Title V Permit

30. All pipes shall be visually inspected 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.2] Federally Enforceable Through Title V Permit

31. The 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. [District Rule 4401, 5.8.3.1] 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.
32. 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.3.2] Federally Enforceable Through Title V Permit

33. The operator shall 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. The operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4.1] Federally Enforceable Through Title V Permit

34. The operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. The operator shall inspect a component, other than PRDs, that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. The operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.4.2, 5.8.4.3, 5.8.5] Federally Enforceable Through Title V Permit

35. A 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, 5.8.6] Federally Enforceable Through Title V Permit

36. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.1, 5.9.2] Federally Enforceable Through Title V Permit

37. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. Except for leaking critical components or leaking essential components, if the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece of equipment to a District approved control device that has an overall VOC collection and destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rule 4401, 5.9.3, 5.9.4] Federally Enforceable Through Title V Permit

38. The operator shall repair minor gas leaks within 14 days, major gas leaks which less than or equal to 50,000 ppmv within 5 days., major gas leaks which are greater than 50,000 ppmv within two days, minor liquid leaks within 3 days, and major liquid leaks within 2 days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4401, 5.9.4, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

39. If a leaking component is an essential component or a critical component which cannot be shut down immediately for repairs, and after being minimized still exceeds the applicable leak standard, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround or no later than one year from the date of original leak detection, whichever is earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

40. 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

41. 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. [District Rule 4401, 6.1.3] 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. The operator shall maintain copies of training records and of the latest APCO-approved Operator Management Plan (OMP) at the facility and make such available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.7, 6.1.8] Federally Enforceable Through Title V Permit

43. The results of periodic gauge tank TVP testing conducted shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.10] 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. The 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, 6.1.11] Federally Enforceable Through Title V Permit

45. Except as elsewhere in this permit, the 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. [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 control efficiency testing requirement if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare, or if the vapor collection and control does not have a VOC destruction device. [District Rule 4401, 6.2.2, 6.2.3] Federally Enforceable Through Title V Permit

47. An operator seeking approval a waiver of the annual control efficiency testing requirement shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401, 6.2.4] Federally Enforceable Through Title V Permit

48. The operator shall conduct TVP testing of each gauge tank, as defined by Section 3.17 of Rule 4401, 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 Rule 4623 (Storage of Organic Liquids). [District Rule 4401, 6.2.5] Federally Enforceable Through Title V Permit

49. 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

50. 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

51. 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.
52. 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, 6.3.5] Federally Enforceable Through Title V Permit

53. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

54. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description (the results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the OMP); a detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

55. Permittee shall maintain records of number and type of fugitive emissions components and calculated fugitive emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

56. Records of leaks detected during annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

57. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

58. 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 4401, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1129-692-5
SECTION: SW18  TOWNSHIP: 30S  RANGE: 22E
EXPIRATION DATE: 02/29/2016

EQUIPMENT DESCRIPTION:
140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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; 2520, 9.4.2; 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable 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. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit


16. On and after May 3, 2013, the engine's oil and filter shall be changed every 1,000 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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11. 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; 2520, 9.4.2; 17 CCR 93115 , and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-864-12
EXPIRATION DATE: 02/29/2016

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING FROM '865 AND '866; AND TO TEOR PERMIT S-1128-116

PERMIT UNIT REQUIREMENTS

1. Except for pressure relief streams, area drains, and pressure drains, produced fluids shall be routed to gas/liquid separation equipment prior to transfer to storage tank(s). Except for releases from pressure relief valves, vapors separated from fluids produced from any well associated with this operation shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 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 the 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

3. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

4. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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

5. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All components not excluded from counting shall be identified and categorized according to the following component types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). [District Rule 2201] Federally Enforceable Through Title V Permit

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8. Fugitive components in crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201] Federally Enforceable Through Title V Permit

11. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Fugitive VOC emissions from TEOR operation shall not exceed 36.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Fugitive VOC limit listed above does not include piping and components exempt from counting including: piping and components handling produced fluids with an API gravity less than 30 degrees, piping and components in water/oil service (water content greater than or equal to 50%), piping and components handling fluids having less than 10% VOC by weight, or existing production handling or flow measurement facilities. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except for components specified above, permittee shall maintain with the permit accurate counts of fugitive components subject to counting by type and service and resulting emissions calculated using the average emissions factors in the USEPA's 1995 Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017, Table 2-4). [District Rule 2201] Federally Enforceable Through Title V Permit

15. Permittee shall maintain a current list of all thermally enhanced production wells associated with this operation and accurate records of fugitive inspection component counts of non-exempt components and leak inspection results, and make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Permittee shall maintain a current listing of wells with a packer installed and include the label "Packer" on wells with packers. Wells with a packer are not subject to VOC emissions checks. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and location of sampling point. [District Rule 1070] Federally Enforceable Through Title V Permit

18. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with 99% vapor control or if the wells are idle. [District Rules 2201 and 4401, 5.4] Federally Enforceable Through Title V Permit

19. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

20. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

21. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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22. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification 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 first; 7) The method(s) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

23. Steam-enhanced crude oil production well vents shall be closed, except when 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, and the front line production equipment downstream of the wells that carry produced fluids be connected to a VOC collection and control system. Alternatively, steam-enhanced crude oil production well vents shall be open and the well vents connected to a VOC collection and control system. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

24. The operator shall be in violation of Rule 4401 if any District inspection, or operator inspection conducted as a requirement of this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1] Federally Enforceable Through Title V Permit

25. There shall not be 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.6.2.1] Federally Enforceable Through Title V Permit

26. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

27. There shall be no components with major liquid leaks or with gas leaks greater than 50,000 ppmv. [District Rule 4401, 5.6.2.2 and 5.6.2.3] Federally Enforceable Through Title V Permit

28. There shall not be more minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv than the following: 3 leaks for 1 - 25 wells, 6 leaks for 26 - 50 wells, 8 leaks for 51 - 100 wells, 10 leaks for 101 - 250 wells, 15 leaks for 251 - 500 wells, and 1 leak for each 20 wells (with a minimum of 50 wells test) for more than 500 wells connected to a VOC collection and control system. [District Rule 4401, 5.6.2.4] Federally Enforceable Through Title V Permit

29. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] 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. 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 and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

31. Except for pipes and unsafe-to-monitor components, all other components shall be inspected pursuant to the requirements of section 6.3.3 at least once every year. [District Rule 4401, 5.8.1] Federally Enforceable Through Title V Permit

32. All pipes shall be visually inspected 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.2] Federally Enforceable Through Title V Permit

33. The 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. [District Rule 4401, 5.8.3.1] Federally Enforceable Through Title V Permit

34. 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.3.2] Federally Enforceable Through Title V Permit

35. The operator shall 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. The operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4.1] Federally Enforceable Through Title V Permit

36. The operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. The operator shall inspect a component, other than PRDs, that has been replaced or repaired not later than 15 calendar days after the component was repaired or replaced. The operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.4.2, 5.8.4.3, 5.8.5] Federally Enforceable Through Title V Permit

37. A 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, 5.8.6] Federally Enforceable Through Title V Permit

38. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.1, 5.9.2] Federally Enforceable Through Title V Permit

39. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. Except for leaking critical components or leaking essential components, if the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has an overall VOC collection and destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rule 4401, 5.9.3, 5.9.4] 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.
40. The operator shall repair minor gas leaks within 14 days, major gas leaks which less than or equal to 50,000 ppmv within 5 days, major gas leaks which are greater than 50,000 ppmv within two days, minor liquid leaks within 3 days, and major liquid leaks within 2 days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4401, 5.9.4, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

41. If a leaking component is an essential component or a critical component which cannot be shut down immediately for repairs, and after being minimized still exceeds the applicable leak standard, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround or no later than one year from the date of original leak detection, which ever is earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

42. 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

43. 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. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

44. The operator shall maintain copies of training records and of the latest APCO-approved Operator Management Plan (OMP) at the facility and make such available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.7, 6.1.8] Federally Enforceable Through Title V Permit

45. The results of periodic gauge tank TVP testing conducted shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

46. 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. The 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, 6.1.11] Federally Enforceable Through Title V Permit

47. Except as elsewhere in this permit, the 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. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

48. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual control efficiency testing requirement if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare, or if the vapor collection and control does not have a VOC destruction device. [District Rule 4401, 6.2.2, 6.2.3] Federally Enforceable Through Title V Permit

49. An operator seeking approval a waiver of the annual control efficiency testing requirement shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401, 6.2.4] Federally Enforceable Through Title V Permit

50. The operator shall conduct TVP testing of each gauge tank, as defined by Section 3.17 of Rule 4401, 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 Rule 4623 (Storage of Organic Liquids). [District Rule 4401, 6.2.5] 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.
51. 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 analyte/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

52. 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

53. 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

54. 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, 6.3.5] Federally Enforceable Through Title V Permit

55. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

56. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description (the results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the OMP); a detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

57. Records of leaks detected during annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

58. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] 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.
59. All records required by this permit shall be maintained and retained for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-865-4
EXPIRATION DATE: 02/29/2016
SECTION: SW18 TOWNSHIP: 30S RANGE: 22E
EQUIPMENT DESCRIPTION:
1110 BBL GAS/LIQUID SEPARATOR V-100 VENTED TO TEOR SYSTEM S-1129-864

PERMIT UNIT REQUIREMENTS

1. Equipment may include a compressor, or a compressor and chiller. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall comply in full with all applicable Rule 4401 requirements. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 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 the 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

5. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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

7. An operator shall reinspect a component for leaks within 30 days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Fugitive components in crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [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 demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201] Federally Enforceable Through Title V Permit

11. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate records of fugitive leak inspection results. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually). Testing performed for permit S-1129-864 shall be deemed representative of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

15. 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] Federally Enforceable Through Title V Permit

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

1. Equipment may include a compressor, or a compressor and chiller. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall comply in full with all applicable Rule 4401 requirements. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

4. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 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 the 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

5. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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

7. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Fugitive components in crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [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 demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201] Federally Enforceable Through Title V Permit

11. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Permittee shall maintain accurate records of fugitive leak inspection results. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually). Testing performed for permit S-1129-864 shall be deemed representative of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

15. 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] 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-1129-867-2

EXPIRATION DATE: 02/29/2016

EQUIPMENT DESCRIPTION:
1190 BBL (49,980 GALLONS) (12.5 FT DIA X 50 FT) HEAVY CRUDE OIL WET LACT SEPARATOR VESSEL AND ASSOCIATED PIPING AND COMPONENTS, VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1129-386

PERMIT UNIT REQUIREMENTS

1. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gas/liquid components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). [District Rule 2201] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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

7. All vapor service piping, fittings, and valves dedicated to the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel 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 vessel 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 ft 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

8. Maximum VOC content of vapor in the vessel vapor control system shall not exceed 50% by weight. [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. Fugitive VOC emissions from components in vapor service shall not exceed 10.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain with the permit accurate fugitive component counts of vapor handling equipment and resulting emissions calculated using the average fugitive emissions factors in the USEPA's 1995 Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017, Table 2-4). [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall conduct quarterly gas sampling. If gas samples are less than 50% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC content by weight percent (wt. %) shall be determined using ASTM D1945 for gases and SCAQMD Method 304 or the latest revision of ASTM Method E168, E169, or E260 for liquids. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 2201] 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. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain records of the VOC content of vapor in the vessel vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit

15. 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 2080] Federally Enforceable Through Title V Permit
ATTACHMENT B

Previous Title V Operating Permit
FACILITY-WIDE REQUIREMENTS

1. 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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

2. 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; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit

3. 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

4. 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

5. 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

6. 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

7. Every application for a permit required under Rule 2010 (12/17/92) (Permits Required) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

8. The operator shall maintain records of required monitoring 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

9. 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

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.

Facility Name: CHEVRON USA INC
Location: HEAVY OIL, WESTERN, CA
S-1129-0-1: Apr 21 2011 11:54 PM - GONZALEY
10. 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, 9.6.1] Federally Enforceable Through Title V Permit

11. 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 section 10.0 of District Rule 2520(6/15/95) [District Rules 2520, 9.6.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

12. 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, 9.8] Federally Enforceable Through Title V Permit

13. 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, 9.9.2] Federally Enforceable Through Title V Permit

14. 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, 9.9.3] Federally Enforceable Through Title V Permit

15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.9.4] Federally Enforceable Through Title V Permit

16. 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 permittee, 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, 9.9.5] Federally Enforceable Through Title V Permit

17. 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, 9.10] Federally Enforceable Through Title V Permit

18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the Permittee to enter the permit holder'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, 9.14.2.1] Federally Enforceable Through Title V Permit

19. 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, 9.14.2.2] Federally Enforceable Through Title V Permit

20. 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, 9.14.2.3] Federally Enforceable Through Title V Permit

21. 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, 9.14.2.4] Federally Enforceable Through Title V Permit

22. 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 (12/17/92), 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, and County Rules 401 (in all eight counties in the San Joaquin Valley)] 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.
23. No person shall supply, sell, solicit or apply any architectural coating, except specialty coatings, that contains more than 250 grams of VOC per liter of coating (less water and exempt compounds, and excluding any colorant added to tint bases), or manufacture, blend, or repackage such coating with more than 250 grams of VOC per liter (less water and exempt compounds, and excluding any colorant added to tint bases) for use within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

24. Specialty Coating Limitations: No person shall apply, sell, solicit, or offer for sale any architectural coating listed in the Tables of Standards (District Rule 4601, Table 1 and Table 2), nor manufacture, blend, or repackage such coating for use within the District, which contains VOCs in excess of the specified limits after the corresponding date listed in Table 1 (grams of VOC per liter of coating as applied less water and exempt compounds, excluding any colorant added to tint bases) and in Table 2 (grams of VOC per liter of material), except as provided in Section 5.3 of Rule 4601. [District Rule 4601, 5.2] Federally Enforceable Through Title V Permit

25. All VOC-containing materials shall be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

26. A person shall not use VOCs for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used. [District Rule 4601, 5.5] Federally Enforceable Through Title V Permit

27. The permittee shall comply with all the Labeling and Test Method requirements outlined in Rule 4601 sections 6.1 and 6.2 (9/17/97). [District Rule 4601, 6.1 and 6.2] Federally Enforceable Through Title V Permit

28. 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, 9.14.1 and 10.0] Federally Enforceable Through Title V Permit

29. 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

30. 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

31. Disturbances of soil related to any construction, demolition, excavation, extraction, and other earthmoving activities shall comply with the requirements for fugitive dust control in Rule 8021 (11/15/01) unless specifically exempted under section 4.0 of Rule 8021. [District Rule 8021] Federally Enforceable Through Title V Permit

32. Outdoor handling, storage, and transport of any bulk material shall comply with the requirements of Rule 8031 (11/15/01), unless specifically exempted under section 4.0 of Rule 8031. [District Rule 8031] Federally Enforceable Through Title V Permit

33. Any open area having 3.0 acres or more of disturbed surface area, that has remained undeveloped, unoccupied, unused or vacant for more than seven days shall comply with the requirements of Rule 8051 (11/15/01), unless specifically exempted under section 4.0 of Rule 8051. [District Rule 8051] Federally Enforceable Through Title V Permit

34. Any new or existing public or private paved or unpaved road, road construction project, or road modification project shall implement the control measures and design criteria of, and comply with the requirements of Rule 8061 (11/15/01) unless specifically exempted under section 4.0 of Rule 8061. [District Rule 8061] Federally Enforceable Through Title V Permit

35. Any unpaved vehicle/equipment traffic area of 1.0 acre or larger shall comply with the requirements of Rule 8071 (11/15/01), unless specifically exempted under section 4.0 of Rule 8071. [District Rule 8071] Federally Enforceable Through Title V Permit
36. 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

37. 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, 9.17] Federally Enforceable Through Title V Permit

38. 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

39. 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

40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SIVUAPCD 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); 4101 (12/17/92); 4601, sections 5.1, 5.2, 5.4, 5.5, 6.1, and 6.2 (9/11/97); 8020 (4/25/96); 8030 (4/25/96); 8060 (4/25/96); A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

43. All permits for facilities S-1128, S-1129, S-1141, S-1549, and S-2592 are included in the Texaco, Inc. Heavy Oil Western stationary source. [District NSR Rule] Federally Enforceable Through Title V Permit

44. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit

45. For vapor recovery systems connected to tanks with pressure relief valves, operator shall monitor vapor recovery compressor activation and shut off maximum 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

46. For tanks equipped with pressure relief valves, operator shall inspect pressure relief valves for fugitive leaks annually in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. On June 30, 2002, the initial Title V permit was issued, the reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of reporting period. [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-1129-24-23
EXPIRATION DATE: 02/28/2007

SECTION: NE34   TOWNSHIP: 30S   RANGE: 22E

EQUIPMENT DESCRIPTION:
25.2 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED C.E. NATCO STEAM GENERATOR (HSG #60; DIS# 20754-66) WITH 02 ANALYZER/CONTROLLER, NORTH AMERICAN BURNER, AND FLUE GAS RECIRCULATION - DERBY ACRES LEASE

PERMIT UNIT REQUIREMENTS

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

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

4. 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. 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 and Kern County Rule 407] Federally Enforceable Through Title V Permit

5. Sulfur compound emissions shall not exceed 0.1 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; District Rules 2520, 9.3.2 and 4406] Federally Enforceable Through Title V Permit

6. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] 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), 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

8. 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

9. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel gas and vapor recovery gas combusted in the steam generator shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable 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. Maximum annual heat input of the unit shall not exceed 30 billion Btu per calendar year. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

11. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

12. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at locations(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 1070]

13. 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 ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC 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

14. 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

15. 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, 6.2.1] Federally Enforceable Through Title V Permit

16. Emission rates, except during startup and shutdown, shall not exceed any of the following: PM10: 0.010 lb/MBtu, SOx (as SO2): 1.768 lb/MBtu or 200 lb/hr, NOx (as NO2): 0.0365 lb/MBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MBtu, or CO: 0.0355 lb/MBtu or 48 ppmv @ 3% O2. [District Rules 4301, 4305, 4406 and NSR] Federally Enforceable Through Title V Permit

17. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rule 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time 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. Shutdown is defined as the period of time during which a unit is taken from an 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 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

19. 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

20. 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

21. The source test plan shall identify which basis (ppmv or lb/MBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable 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. 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

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. 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 2201, 4305, 6.3.1, and 4306, 6.3.1] Federally Enforceable Through Title V Permit

24. 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 on-going NOx and CO testing requirement. [District Rules 4305, 4306 and 2520] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx 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 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source for NOx 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 Rules 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx 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 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

29. 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 such that in three years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

30. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct 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 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

31. 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. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
33. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

34. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

36. 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

37. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

38. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. 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 and 4306, 5.4] Federally Enforceable Through Title V Permit

41. 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

42. 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, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

43. 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, 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.
44. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit 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 non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

45. 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

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

PERMIT UNIT: S-1129-47-11
EXPIRATION DATE: 02/28/2007
SECTION: 18 TOWNSHIP: 30S RANGE: 22E
EQUIPMENT DESCRIPTION:
3.5 MW GAS TURBINE ENGINE COGENERATION UNIT #1 - MCKITTRICK

PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b), 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d), 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following submerged requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Cogeneration unit includes 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permitee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx (as NO2): 30 ppmvd @ 15% O2; VOC: 1.65 lb/hr, and CO: 29 ppmvd @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

28. NOx (as NO2) and SOx (as SO2) emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmvd @ 15% O2, and 150 ppmvd-dry @ 15% O2, respectively. [District: Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day; NOx (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOCs) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceed 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 g/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d), 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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
22. Cogeneration unit includes 48.7 MMBtu/hr Allison (nominal rating), model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struithers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx (as NO2): 30 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 29 ppmvd @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

28. 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. [District Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day; NOx (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 69.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

3. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

6. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

7. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

8. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

9. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct 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 duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct 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 duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

10. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [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. The 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

12. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

13. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

18. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

19. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

20. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

21. 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 NSPS NOx 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Cogeneration unit includes 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas fired turbine engine with either pilotless fuel nozzles or conventional fuel nozzles and 20.0 MMBtu/hr (nominal rating) gas fired Forney duct burner. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Cogeneration unit includes Ideal synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator, and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Fuel gas sulfur content shall not exceed 14 ppmv as hydrogen sulfide (H2S). [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx (as NO2): 30 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 29 ppmvd @ 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

28. 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. [District Rule 2520, 9.3.2; 40 CFR 60.332(c) and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

29. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.8 lb/day; NOx (as NO2): 182.4 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Gas turbine shall be fired exclusively with PUC quality natural gas or equivalent. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

39. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
40. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

41. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

42. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Annual compliance with GTE/duct burner NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

44. The following test methods shall be used: CO (ppmv) - EPA Method 10 or 10B. [District Rules 2520, 9.3.2 and 4703] Federally Enforceable Through Title V Permit

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

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/S/100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

6. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

7. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15%O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

8. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703] Federally Enforceable Through Title V Permit

9. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The 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

11. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 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.
12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

15. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

16. 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 NSPS NOx 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

17. All wells producing from strata steam from this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

18. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles, Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiberglass filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiberglass filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer's plans and specifications. [District NSR Rule] Federally Enforceable 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. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmvd @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

31. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmvd NO2 @ 15% O2. [District Rule 4703]

32. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmvd-dry @ 15% O2, and 150 ppmvd-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

34. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

36. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

37. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

38. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Annual compliance with GTE NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

40. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

41. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mw-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

42. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). 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.
43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

2. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

4. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

5. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

6. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

7. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

8. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703] Federally Enforceable Through Title V Permit

9. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The 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

11. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 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.
12. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

13. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

14. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

15. Permittee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

16. 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 NSPS NOx 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

17. All wells producing from strata steam by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

18. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles, Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer’s plans and specifications. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Maximum emission rate of volatile organic compounds (VOCs) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmv @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmv @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

31. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmv NO2 @ 15% O2. [District Rule 4703]

32. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit

34. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Ringelmann 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2520, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

36. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

37. 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. [40 CFR Subpart A 60.2. District NSR Rule] Federally Enforceable Through Title V Permit

38. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Annual compliance with GTE NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

40. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

41. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwhr actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

42. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). 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.
43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
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]

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703]

3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703]

4. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b); 60.332(a); Kern County Rule 407] Federally Enforceable Through Title V Permit

5. Gas turbine shall be fired exclusively with PUC-quality natural gas or equivalent with total sulfur content of less than or equal to 1.0 gr/100 scf of gas. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit

7. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084, D 3246 or Double GC for H2S and Mercaptans. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

8. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

9. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

10. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

11. Carbon monoxide (CO) concentrations shall be determined using EPA Method 10 or 10B. [District Rule 4703] Federally Enforceable Through Title V Permit

12. If the turbine is fired on PUC-regulated natural gas, then the operator shall maintain a log describing the source of natural gas and the quantity used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
14. 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, source(s) of and quantity of fuel used, fuel sulfur content and fuel nitrogen content. [40 CFR 60.332(a),(b); District Rules 2520, 9.3.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

15. Permitee shall install, operate and maintain a calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.333(c). [Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

16. Permitee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

17. Permitee shall install, operate and maintain a system which continuously measures and records elapsed time of turbine operation. [District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

18. Permitee shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

19. 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 NSPS NOx 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

20. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401, 5.0] Federally Enforceable Through Title V Permit

21. Cogeneration unit shall include 48.7 MMBtu/hr (nominal rating) Allison, model 501-KB-5, gas-fired turbine engine with pilotless fuel nozzles or conventional fuel nozzles, Ideal Synchronous electrical generator, Struthers-Wells unfired 22.5 MMBtu/hr steam generator and an inlet air evaporative cooler. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Turbine lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Generator gearbox lube oil tank shall vent only through CECO Model #STTOR-10 fiber bed filter system. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Permitee shall notify the District by fax or in writing prior to or within 4 hours of any turbine nozzle replacement, except for identical replacement. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Gas turbine engine shall be equipped with continuously recording fuel gas flow rate monitor. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine shall be equipped with operational water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Gas turbine engine shall be equipped with continuously recording water injection rate monitor accurate to within 5%. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Waste heat recovery steam generator exhaust shall be equipped with permanent provisions to allow collection of gas samples consistent with EPA methods. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas turbine engine water injection rate shall be maintained at a water to fuel ratio no less than 0.48/1.0 by weight while operating with pilotless fuel nozzles and no less than 0.8/1.0 by weight while operating with conventional fuel nozzles. [District NSR Rule] Federally Enforceable 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. Evaporative cooler shall use only fresh and filtered water. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fiber bed filter system shall be maintained and operated in accordance with the manufacturer's plans and specifications. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Maximum emission rate of volatile organic compounds (VOC's) from turbine lube oil vent shall not exceed 0.02 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Except during periods of startup/shutdown, emission rates (3 hr average) shall not exceed: PM10: 0.61 lb/hr; SOx (as SO2): 0.16 lb/hr; NOx: 42 ppmvd @ 15% O2; VOC: 1.65 lb/hr; and CO: 41 ppmvd @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

34. Except during periods of startup/shutdown, NOx emission rate (3 hr average) shall not exceed 35 ppmvd NO2 @ 15% O2. [District Rule 4703]

35. Emissions shall not exceed the following: PM10: 14.6 lb/day; SOx (as SO2): 3.3 lb/day; NOx (as NO2): 153.0 lb/day; VOC: 39.6 lb/day; and CO: 107.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

36. NOx and SOx emission rates (1 hr average) shall not exceed NSPS standard of 150 ppmv-dry @ 15% O2, and 150 ppmv-dry @ 15% O2, respectively. [District Rule 2520, 9.3.2; 40 CFR 60.332(c); 40CFR 60.333(a)] Federally Enforceable Through Title V Permit

37. During days of gas turbine startup/shutdown, permittee shall maintain accurate daily records of natural gas consumption in gas turbine for normal operation and startup/shutdown periods. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Compliance testing of lube oil vent and gearbox vent shall be required if monthly visible emissions checks from either vent exceeds 5% opacity or equivalent Röhm's 1/4. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 2201, 9.3.2 and NSR] Federally Enforceable Through Title V Permit

39. Thermal stabilization period shall be defined as the start-up or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District NSR Rule] Federally Enforceable Through Title V Permit

40. 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. [40 CFR Subpart A 60.2, District NSR Rule] Federally Enforceable Through Title V Permit

41. Permittee shall keep accurate records of fuel sulfur content, and such records shall be made available for District inspection for five years. [40 CFR 60.334(b)(2), District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. Annual compliance with GTE NOx and CO emission limits (pursuant to Rule 4703 (10/16/97)) and fuel sulfur limit shall be demonstrated by District witnessed or authorized sample collection by independent laboratory. Test results shall be submitted within 60 days. [District NSR Rule and Rule 4703] Federally Enforceable Through Title V Permit

43. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Kern County Rule 108.1] Federally Enforceable Through Title V Permit

44. The following types of units are not affected units subject to the requirements of the Acid Rain Program: 1) A simple combustion turbine that commenced operation before November 15, 1990, 2) Any unit that, during 1985, did not serve a generator that produced electricity for sale and that did not, as of November 15, 1990, and does not currently, serve a generator that produces electricity for sale, 3) A cogeneration facility which for a unit that commenced construction prior to November 15, 1990, was constructed for the purpose of supplying equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 Mwe-hrs actual electric output on an annual basis to any utility power distribution system for sale. Therefore, the requirements of 40 CFR 72.6 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. Maximum annual heat input of the unit shall be less than 9 billion Btu per calendar year. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

2. 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, and 4306] Federally Enforceable Through Title V Permit

3. 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, at the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4306] Federally Enforceable Through Title V Permit

4. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year, this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4306] Federally Enforceable Through Title V Permit

5. The permittee shall monitor, at least on a monthly basis, fluid temperature and fluid interface level or other operational characteristics recommended by the unit manufacturer. 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

6. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

7. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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. Particulate matter emissions shall not exceed 0.1 gmin/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] 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.
10. 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

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 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. 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, 9.3.2] 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Heater treaters shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

18. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

1. The permittee shall notify the District at least seven calendar days prior to the designation of this permit unit as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit

2. When designated as a dormant emissions unit the fuel supply line shall be physically disconnected from the emissions unit. [District Rule 4307] Federally Enforceable Through Title V Permit

3. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing, tuning, or monitoring requirements otherwise required by this permit. [District Rule 4307] Federally Enforceable Through Title V Permit

4. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of the dormant emissions unit. [District Rule 1081] Federally Enforceable Through Title V Permit

5. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

6. Upon recommencing operation 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 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown [District Rule 4307 5.2.1] Federally Enforceable Through Title V Permit

7. Upon recommencing operation, copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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. Upon recommencing operation, 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. Upon recommencing operation, particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] 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.
10. Upon recommencing operation, emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as \( \text{SO}_2 \). Compliance with this requirement may be demonstrated by firing the unit only on FUC 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

11. 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Upon recommencing operation, when complying with \( \text{SO}_x \) emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. Upon recommencing operation, if the unit is fired on noncertified gaseous fuel and compliance with \( \text{SO}_x \) 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, 9.3.2] Federally Enforceable Through Title V Permit

14. Upon recommencing operation, 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

15. Upon recommencing operation, excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Upon recommencing operation, heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Upon recommencing operation, permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305] 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-1129-114-7
EXPIRATION DATE: 02/28/2007
SECTION: NW/2  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 9.0 MMBTU/HR GAS-FIRED HEATER TREATER WITH TWO BURNERS EACH RATED AT 4.5 MMBTU/HR - NORTH MIDWAY

PERMIT UNIT REQUIREMENTS

1. No modification(s) 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. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit

3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rules 2010 and 4306] Federally Enforceable Through Title V Permit

4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, 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

6. 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

7. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

8. 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

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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

11. 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, 9.3.2] 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, 9.3.2] Federally Enforceable Through Title V Permit

13. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit
San Joaquin Valley  
Air Pollution Control District  

PERMIT UNIT: S-1129-115-4  
EXPIRATION DATE: 02/28/2007  

SECTION: NW02  TOWNSHIP: 31S  RANGE: 22E  

EQUIPMENT DESCRIPTION:  
7.4 MMBTU/HR GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/HR AND ONE  
BURNER RATED AT 2.0 MMBTU/HR - NORTH MIDWAY  

PERMIT UNIT REQUIREMENTS  

1. Maximum annual heat input of the unit shall be less than 9 billion Btu per calendar year. [District Rules 2201, 4305,  
and 4306] Federally Enforceable Through Title V Permit  

2. 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, and 4306] Federally Enforceable Through  
Title V Permit  

3. 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). [District Rule 4306]  
Federally Enforceable Through Title V Permit  

4. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is  
required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this  
unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit  
shall be shutdown. [District Rule 4306] Federally Enforceable Through Title V Permit  

5. The permittee shall monitor, at least on a monthly basis, fluid temperature and fluid interface level or other operational  
characteristics recommended by the unit manufacturer. 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  

6. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last  
Title V Permit  

7. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the  
conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted,  
fuel sources, 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. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. Firing  
on PUC or FERC quality natural gas shall demonstrate compliance with this requirement. [District Rules 4201, 3.1 and  
4301, 5.1 and 5.2.3] 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.
10. 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

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 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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, 6A, 6B, 6C, Method 8 or ARB Method 1-100; 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 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

13. 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, 9.3.2] 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 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Excess combustion air shall be maintained at no less than 10% unless continuous operation oxygen analyzer/controller is utilized. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Heater treater shall be fired exclusively on natural gas or LPG and shall have no provisions for firing on fuel oil. [District Rules 2080 and 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

18. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

1. Host vapor pressure (ROC - C2) of any organic liquid introduced to the tank shall not exceed 0.23 psia. [District Rule 2201]

2. Daily volume of liquids introduced into tank shall not exceed 16,000 barrels on any given day. [District Rule 2201]

3. Annual volume of liquids introduced into tank shall not exceed 960,000 barrels per year. [District Rule 2201]

4. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, 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]

5. The API gravity of crude oil or petroleum distillate shall be determined 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 by using ASTM Method D 287 el "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]

6. 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" (Host Method), as approved by ARB and EPA. [District Rule 4623]

7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623]

8. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]

9. Permittee shall submit 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]

10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity, and throughput. [District Rule 4623]

11. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623]

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] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-277-3
SECTION: NW02    TOWNSHIP: 31S    RANGE: 22E
EXPIRATION DATE: 02/28/2007
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, DRAIN TANK

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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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 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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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 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, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, 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] 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] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit

7. 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] Federally Enforceable Through Title V Permit

8. 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] Federally Enforceable Through Title V Permit

9. All records required to be maintained by this permit shall be maintained for a period of at least 5 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.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-385-14

EXPIRATION DATE: 02/28/2007

SECTION: SW17    TOWNSHIP: 30S    RANGE: 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK
AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTRICK OILFIELD)

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

3. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with 99% vapor control or if the wells are idle. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

4. Fugitive VOC emissions from TEOR system including condensate collection and handling shall not exceed 29.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities, or shown to be handling produced fluids with an API gravity less than 30 degrees or fluid streams containing more than 50% water (by weight) or with a VOC content of 10% (by weight) or less. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Components to be screened and counted for determining compliance with fugitive VOC limit listed above shall be identified and categorized according to the appropriate fluid types (gas or water/oil) in Table 2-4 of the EPA's "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and the following component types: valves, fittings, threaded connections, open-ended lines, pumps, compressors, pressure relief devices, pipes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The VOC content of the casing gas shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum amount of gas combusted in flare shall not exceed 21.6 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx (as NO2): 0.068 lb/MMBtu; PM10: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Sulfur emissions from flare shall not exceed 49.4 lb SO2/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. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 25% or less VOC by weight for eight consecutive quarterly samplings, 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] Federally Enforceable Through Title V Permit

12. The higher heating value of the flared gas shall be monitored at least quarterly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

13. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limit. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The flare shall be operated according to the manufacturer’s specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Operation shall include condenser vessel, air-cooled heat exchanger, 500 barrel condensate vessel and 0.9 MMBtu/hr Sur-Lite Model 20 SLF enclosed flare. [District Rule 2201] Federally Enforceable Through Title V Permit

16. 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

17. All vapors from condenser shall be incinerated in flare. [District Rule 2201] Federally Enforceable Through Title V Permit

18. A flame or 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 shall be operational. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

19. Flame temperature of the flare shall be greater than 1200 degrees F or another temperature established during source testing which documents compliance with all emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Flare shall be equipped with operational fuel meters to measure quantity of PUC quality makeup gas and TEOR gas incinerated. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the flare is fired on noncertified gaseous fuel (including TEOR gas) 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, 9.3.2] 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 (including TEOR gas) 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 until compliance with the sulfur limits can be demonstrated for 8 consecutive weeks for a fuel source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Sulfur content of the combusted gas shall be determined using ASTM test methods D-1072, D-3246, D-6228, or double GC for H2S and Mercaptans. H2S concentration (ppmv) of the gas shall be determined using ASTM test methods D-1072 or D-4084, using Draeger tube, or by gas supplier test data consistent with the natural gas fuel sulfur content test method listed in this permit. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Source test results shall be submitted to the District within 60 days after collection. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

26. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable 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. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

28. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification 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 first; 7) The method(s) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector’s name, business mailing address, and business telephone number. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

29. Steam-enhanced crude oil production well vents shall be closed, except when 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, and the front line production equipment downstream of the wells that carry produced fluids be connected to a VOC collection and control system. Alternatively, steam-enhanced crude oil production well vents shall be open and the well vents connected to a VOC collection and control system. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

30. The operator shall be in violation of Rule 4401 if any District inspection, or operator inspection conducted as a requirement of this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1] Federally Enforceable Through Title V Permit

31. There shall not be 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.6.2.1] Federally Enforceable Through Title V Permit

32. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 3.20] Federally Enforceable Through Title V Permit

33. There shall be no components with major liquid leaks or with gas leaks greater than 50,000 ppmv. [District Rule 4401, 5.6.2.2 and 5.6.2.3] Federally Enforceable Through Title V Permit

34. There shall not be more minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv than the following: 3 leaks for 1 - 25 wells, 6 leaks for 26 - 50 wells, 8 leaks for 51 - 100 wells, 10 leaks for 101 - 250 wells, 15 leaks for 251 - 500 wells, and 1 leak for each 20 wells (with a minimum of 50 wells test) for more than 500 wells connected to a VOC collection and control system. [District Rule 4401, 5.6.2.4] 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.
35. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

36. 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 and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

37. Except for pipes and unsafe-to-monitor components, all other components shall be inspected pursuant to the requirements of section 6.3.3 at least once every year. [District Rule 4401, 5.8.1] Federally Enforceable Through Title V Permit

38. All pipes shall be visually inspected 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.2] Federally Enforceable Through Title V Permit

39. The operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. [District Rule 4401, 5.8.3.1] Federally Enforceable Through Title V Permit

40. 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.3.2] Federally Enforceable Through Title V Permit

41. The operator shall 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. The operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4.1] Federally Enforceable Through Title V Permit

42. The operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. The operator shall inspect a component, other than PRDs, that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. The operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.4.2, 5.8.4.3, 5.8.5] Federally Enforceable Through Title V Permit

43. A 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, 5.8.6] Federally Enforceable Through Title V Permit

44. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.1, 5.9.2] Federally Enforceable Through Title V Permit
45. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. Except for leaking critical components or leaking essential components, if the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rule 4401, 5.9.3; 5.9.4] Federally Enforceable Through Title V Permit

46. The operator shall repair minor gas leaks within 14 days, major gas leaks which less than or equal to 50,000 ppmv within 5 days, major gas leaks which are greater than 50,000 ppmv within two days, minor liquid leaks within 3 days, and major liquid leaks within 2 days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4401, 5.9.4, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

47. If a leaking component is an essential component or a critical component which cannot be shut down immediately for repairs, and after being minimized still exceeds the applicable leak standard, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround or no later than one year from the date of original leak detection, which ever is earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

48. 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

49. 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. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

50. The operator shall maintain copies of training records and of the latest APCO-approved Operator Management Plan (OMP) at the facility and make such available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.7, 6.1.8] Federally Enforceable Through Title V Permit

51. The results of periodic gauge tank TVP testing conducted shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit

52. 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. The 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, 6.1.11] Federally Enforceable Through Title V Permit

53. Except as elsewhere in this permit, the 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. [District Rule 4401, 6.2.1] Federally Enforceable Through Title V Permit

54. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual control efficiency testing requirement if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare, or if the vapor collection and control does not have a VOC destruction device. [District Rule 4401, 6.2.2, 6.2.3] 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.
55. An operator seeking approval a waiver of the annual control efficiency testing requirement shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401, 6.2.4] Federally Enforceable Through Title V Permit

56. The operator shall conduct TVP testing of each gauge tank, as defined by Section 3.17 of Rule 4401, 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 Rule 4623 (Storage of Organic Liquids). [District Rule 4401, 6.2.5] 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 analyte/compound 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, 6.3.5] Federally Enforceable Through Title V Permit

61. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
62. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description (the results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the OMP); a detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

63. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

64. Compliance with permit conditions in the Title V permit shall be deemed compliance with subsumed Kern County Rule 404. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

65. Permittee shall maintain records of number and type of fugitive emissions components and calculated fugitive emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

66. Permittee shall keep accurate records of daily heat input to the flare in MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

67. Permittee shall maintain with this permit a current listing of all steam enhanced wells connected to the casing collection system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

68. Daily records of TEOR gas and makeup gas consumed by flare shall be retained on site and shall be made readily available for District inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

69. Records of leaks detected during annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

70. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

71. All records required by this permit shall be maintained and retained for a minimum of five (5) years and made available for District, ARB, and EPA inspection upon request. [District Rule 4401, 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. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

3. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with 99% vapor control or if the wells are idle. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

4. Fugitive emissions from TEOR system including condensate collection and handling shall not exceed 118.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities, or shown to be handling produced fluids with an API gravity less than 30 degrees or fluid streams containing more than 50% water (by weight) or with a VOC content of 10% (by weight) or less. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Components to be screened and counted for determining compliance with fugitive VOC limit listed above shall be identified and categorized according to the appropriate fluid types (gas or water/oil) in Table 2-4 of the EPA's "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and the following component types: valves, fittings, threaded connections, open-ended lines, pumps, compressors, pressure relief devices, pipes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems. [District Rule 2201] Federally Enforceable Through Title V Permit

7. TEOR operation with well vent vapor control system including: gas/liquid separators, water-cooled heat exchangers, fin-fan cooling towers, vacuum pumps with separators, liquid transfer pumps, casing gathering line, liquid traps and pumps, compressors, fin fan heat exchangers, 2-phase separators, and non-condensible gas line with liquid traps to existing incineration steam generator S-1129-24 or DOGGR approved vapor disposal wells. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Operation shall include condensate piping to existing crude oil wash tank. [District NSR Rule] Federally Enforceable Through Title V Permit

9. Gas/liquid separators and condensate drums/tanks and all other equipment used to handle or store condensate shall be enclosed and shall vent only to vapor control system. [District NSR Rule] Federally Enforceable 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. Water/VOC condensate from gas/liquid separators and condensate drums shall be pumped only to production manifold or to production facilities equipped with an operating vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Condensate storage/production wash tank shall be operated at a constant fluid level. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Collected vapors shall disposed of in District approved incineration devices as listed on this permit or in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall make copies of DOGGR approval for injection wells and make such documentation readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall document Department of Oil & Gas Geothermal Resources approval for vapor disposal wells prior to injection of vapors. [District Rules 4401 and NSR] Federally Enforceable Through Title V Permit

14. Permittee shall cease injection vapors & notify the District immediately if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The VOC content of the casing gas shall not exceed 25% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 25% or less VOC by weight for eight consecutive quarterly samplings, 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] Federally Enforceable Through Title V Permit

17. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

18. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable Through Title V Permit

19. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

20. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification 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 first; 7) The method(s) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
21. Steam-enhanced crude oil production well vents shall be closed, except when 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, and the front line production equipment downstream of the wells that carry produced fluids be connected to a VOC collection and control system. Alternatively, steam-enhanced crude oil production well vents shall be open and the well vents connected to a VOC collection and control system. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

22. The operator shall be in violation of Rule 4401 if any District inspection, or operator inspection conducted as a requirement of this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1] Federally Enforceable Through Title V Permit

23. There shall not be 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 requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.6.2.1] Federally Enforceable Through Title V Permit

24. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 3.20] Federally Enforceable Through Title V Permit

25. There shall be no components with major liquid leaks or with gas leaks greater than 50,000 ppmv. [District Rule 4401, 5.6.2.2 and 5.6.2.3] Federally Enforceable Through Title V Permit

26. There shall not be more minor liquid leaks, minor gas leaks, or gas leaks greater than 10,000 ppmv up to 50,000 ppmv than the following: 3 leaks for 1 - 25 wells, 6 leaks for 26 - 50 wells, 8 leaks for 51 - 100 wells, 10 leaks for 101 - 250 wells, 15 leaks for 251 - 500 wells, and 1 leak for each 20 wells (with a minimum of 50 wells test) for more than 500 wells connected to a VOC collection and control system. [District Rule 4401, 5.6.2.4] Federally Enforceable Through Title V Permit

27. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

28. 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 and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

29. Except for pipes and unsafe-to-monitor components, all other components shall be inspected pursuant to the requirements of section 6.3.3 at least once every year. [District Rule 4401, 5.8.1] Federally Enforceable Through Title V Permit

30. All pipes shall be visually inspected 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.2] Federally Enforceable Through Title V Permit

31. The 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. [District Rule 4401, 5.8.3.1] 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.
32. 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 as allowed by Rule 4401 and specified in this permit. [District Rule 4401, 5.8.3.2] Federally Enforceable Through Title V Permit

33. The operator shall 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. The operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4.1] Federally Enforceable Through Title V Permit

34. The operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. The operator shall inspect a component, other than PRDs, that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. The operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.4.2, 5.8.4.3, 5.8.5] Federally Enforceable Through Title V Permit

35. A 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, 5.8.6] Federally Enforceable Through Title V Permit

36. The operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.1, 5.9.2] Federally Enforceable Through Title V Permit

37. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. Except for leaking critical components or leaking essential components, if the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rule 4401, 5.9.3, 5.9.4] Federally Enforceable Through Title V Permit

38. The operator shall repair minor gas leaks within 14 days, major gas leaks which less than or equal to 50,000 ppmv within 5 days, major gas leaks which are greater than 50,000 ppmv within two days, minor liquid leaks within 3 days, and major liquid leaks within 2 days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4401, 5.9.4, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

39. If a leaking component is an essential component or a critical component which cannot be shut down immediately for repairs, and after being minimized still exceeds the applicable leak standard, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround or no later than one year from the date of original leak detection, which ever is earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

40. 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

41. 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. [District Rule 4401, 6.1.3] 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. The operator shall maintain copies of training records and of the latest APCO-approved Operator Management Plan (OMP) at the facility and make such available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.7, 6.1.8] Federally Enforceable Through Title V Permit

43. The results of periodic gauge tank TVP testing conducted shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1.10] 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. The 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, 6.1.11] Federally Enforceable Through Title V Permit

45. Except as elsewhere in this permit, the 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. [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 control efficiency testing requirement if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare, or if the vapor collection and control does not have a VOC destruction device. [District Rule 4401, 6.2.2, 6.2.3] Federally Enforceable Through Title V Permit

47. An operator seeking approval a waiver of the annual control efficiency testing requirement shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401, 6.2.4] Federally Enforceable Through Title V Permit

48. The operator shall conduct TVP testing of each gauge tank, as defined by Section 3.17 of Rule 4401, 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 Rule 4623 (Storage of Organic Liquids). [District Rule 4401, 6.2.5] Federally Enforceable Through Title V Permit

49. 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 ppmv 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

50. 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

51. 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.
52. 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, 6.3.5] Federally Enforceable Through Title V Permit

53. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit

54. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description (the results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the OMP); a detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

55. Permittee shall maintain records of number and type of fugitive emissions components and calculated fugitive emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

56. Records of leaks detected during annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

57. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

58. 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-1129-692-4

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1129-693-4
EXPIRATION DATE: 02/28/2007
SECTION: SW18  TOWNSHIP: 30S  RANGE: 22E

EQUIPMENT DESCRIPTION:
140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit.
PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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


SECTION: NE34  TOWNSHIP: 30S  RANGE: 22E

EQUIPMENT DESCRIPTION:
140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. 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-1129-699-4
EXPIRATION DATE: 02/28/2007

SECTION: NE34  TOWNSHIP: 30S  RANGE: 22E

EQUIPMENT DESCRIPTION:
140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

3. This engine shall be equipped with an operational non-resetable 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit

2. Particulate matter emissions shall not exceed 0.1 grains/scf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

3. This engine shall be equipped with an operational non-resetable 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 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

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. Operation of the engine shall not exceed 20 hours per year. [17 CCR 93115]

7. Operation of the engine shall not exceed 200 hours per year. [District Rule 4702, 4.2.2] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rules 4201 and 4801; Kern County Rule 407. 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 subsumed Kern County Rule 404. 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.
PERMIT UNIT: S-1129-864-10

San Joaquin Valley
Air Pollution Control District

EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING FROM ‘-865 AND ‘-866; AND TO TEOR PERMIT S-1128-116

PERMIT UNIT REQUIREMENTS

1. Except for pressure relief streams, area drains, and pressure drains, produced fluids shall be routed to gas/liquid separation equipment prior to transfer to storage tank(s). Except for releases from pressure relief valves, vapors separated from fluids produced from any well associated with this operation shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201]

2. Permittee shall comply in full with all applicable Rule 4401 requirements. [District Rule 4401]

3. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 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 the 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]

4. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201]

5. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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]

6. An operator shall reinspect a component for leaks within 30 days after the date on which the component is repaired. [District Rule 2201]

7. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201]

8. All components not excluded from counting shall be identified and categorized according to the following component types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Fugitive components in crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [District Rule 2201]

10. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201]

11. Permitee shall demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201]

12. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201]

13. Fugitive VOC emissions from TEOR operation shall not exceed 36.3 lb/day. [District Rule 2201]

14. Fugitive VOC limit listed above does not include piping and components exempt from counting including: piping and components handling produced fluids with an API gravity less than 30 degrees, piping and components in water/oil service (water content greater than or equal to 50%), piping and components handling fluids having less than 10% VOC by weight, or existing production handling or flow measurement facilities. [District Rule 2201]

15. Except for components specified above, permittee shall maintain with the permit accurate counts of fugitive components subject to counting, by type and service and resulting emissions calculated using the average emissions factors in the USEPA's 1995 Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017, Table 2-4). [District Rule 2201]

16. Permittee shall maintain a current list of all thermally enhanced production wells associated with this operation and accurate records of fugitive inspection component counts of non-exempt components and leak inspection results, and make such records readily available for District inspection upon request. [District Rule 2201]

17. Permittee shall maintain a current listing of wells with a packer installed and include the label "Packer" on wells with packers. Wells with a packer are not subject to VOC emissions checks. [District Rule 2201]

18. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and location of sampling point. [District Rule 1070]

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.
PERMIT UNIT REQUIREMENTS

1. Equipment may include a compressor, or a compressor and chiller. [District Rule 2201]

2. Permittee shall comply in full with all applicable Rule 4401 requirements. [District Rule 4401]

3. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201]

4. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 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 the 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]

5. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201]

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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]

7. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201]

8. Emissions from components which have been tagged by the facility operator for repair within 15 days of which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201]

9. Fugitive components or crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [District Rule 2201]

10. Permittee shall demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201]

12. Permittee shall maintain accurate records of fugitive leak inspection results. [District Rule 2201]

13. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201]

14. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually). Testing performed for permit S-1129-864 shall be deemed representative of this unit. [District Rule 2201]

15. 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]
PERMIT UNIT REQUIREMENTS

1. Equipment may include a compressor, or a compressor and chiller. [District Rule 2201]

2. Permittee shall comply in full with all applicable Rule 4401 requirements. [District Rule 4401]

3. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201]

4. All vapor and condensate service piping, fittings, and valves dedicated to the 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 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 components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to yearly. Components located in inaccessible (over 15 feet above the 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]

5. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201]

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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]

7. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201]

8. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201]

9. Fugitive components in crude oil service shall handle oil with API gravities less than 30 degrees as determined by ASTM Methods D-1298, or D-287 with D-4057. [District Rule 2201]

10. Permittee shall demonstrate that any components in condensate service handle fluid streams that contain at least 50% water (by weight). If the components are shown to contain greater than 80% water (by weight), then no further demonstration will be required, otherwise annual analysis will be required. [District Rule 2201]
11. VOC content shall be tested using methods and procedures approved by the District and conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be done using CARB Method 422. [District Rule 2201]

12. Permittee shall maintain accurate records of fugitive leak inspection results. [District Rule 2201]

13. Operator shall conduct gas sampling at McKittrick MCK-DIA-VOC sample point located between the Master Trap Vessel and the first liquid knockout vessel to qualify for exemption from fugitive component counts for components handling fluids with 10% or less VOC by weight. The testing required by permit S-1129-864 shall be used to demonstrate compliance, which is representative of all components downstream of the first liquid knockout vessel. [District Rule 2201]

14. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually). Testing performed for permit S-1129-864 shall be deemed representative of this unit. [District Rule 2201]

15. 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]
PERMIT UNIT REQUIREMENTS

1. Except for releases from pressure relief valve(s), vapors separated from fluid handled by vessel shall be handled only in closed and/or vapor controlled production equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

2. All vapor and condensate service piping, fittings, and valves dedicated to the vapor recovery system shall be maintained in a gas-tight condition. A gas-tight 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 shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Emissions from components which have been tagged by the facility operator for repair within 15 days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

4. An operator shall reinspect a component for leaks within working 30 days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All gas/liquid components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). [District Rule 2201] Federally Enforceable Through Title V Permit

6. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired 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, re-inspected, and found to be in compliance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All vapor service piping, fittings, and valves dedicated to the vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel 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 vessel 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 ft 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

8. Maximum VOC content of vapor in the vessel vapor control system shall not exceed 50% by weight. [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. Fugitive VOC emissions from components in vapor service shall not exceed 10.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain with the permit accurate fugitive component counts of vapor handling equipment and resulting emissions calculated using the average fugitive emissions factors in the USEPA’s 1995 Protocol for Equipment Leak Emission Estimaeis (EPA-453/R-95-017, Table 2-4). [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall conduct quarterly gas sampling. If gas samples are less than 50% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC content by weight percent (wt. %) shall be determined using ASTM D1945 for gases and SCAQMD Method 304 or the latest revision of ASTM Method E168, E169, or E260 for liquids. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 2201] 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. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain records of the VOC content of vapor in the vessel vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit

15. 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 2080] Federally Enforceable Through Title V Permit

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

Detailed Facility List
<table>
<thead>
<tr>
<th>PERMIT NUMBER</th>
<th>FEE DESCRIPTION</th>
<th>FEE RULE</th>
<th>QTY</th>
<th>FEE AMOUNT</th>
<th>FEE TOTAL</th>
<th>PERMIT STATUS</th>
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<td>815.00</td>
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<td>NON-COMPLIANT DORMANT 9.0 MMBTU/H R GAS-FIRED HEATER TREATER WITH TWO BURNERS EACH RATED AT 4.5 MMBTU/H R - NORTH MIDWAY</td>
</tr>
<tr>
<td>S-1129-115-4</td>
<td>7.4 MMBtu/hr</td>
<td>3020-02 G</td>
<td>1</td>
<td>815.00</td>
<td>815.00</td>
<td>A</td>
<td>7.4 MMBTU/H R GAS-FIRED HEATER TREATER WITH THREE BURNERS EACH RATED AT 1.8 MMBTU/H R AND ONE BURNER RATED AT 2.0 MMBTU/H R - NORTH MIDWAY</td>
</tr>
<tr>
<td>S-1129-225-7</td>
<td>420,000 gallons</td>
<td>3020-06 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>420,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #10GM5 STATION L</td>
</tr>
<tr>
<td>S-1129-275-3</td>
<td>126,000 GALLONS</td>
<td>3020-06 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, STA. 1 T-5 WASH TANK</td>
</tr>
<tr>
<td>S-1129-277-3</td>
<td>21,000 GALLONS</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, DRAIN TANK</td>
</tr>
<tr>
<td>S-1129-278-3</td>
<td>126,000 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, REJECT TANK</td>
</tr>
<tr>
<td>S-1129-280-3</td>
<td>126,000 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>126,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, LACT TANK</td>
</tr>
<tr>
<td>PERMIT NUMBER</td>
<td>FEE DESCRIPTION</td>
<td>FEE RULE</td>
<td>QTY</td>
<td>AMOUNT</td>
<td>TOTAL</td>
<td>STATUS</td>
<td>EQUIPMENT DESCRIPTION</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------</td>
<td>----------</td>
<td>-----</td>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td>------------------------</td>
</tr>
<tr>
<td>S-1129-385-14</td>
<td>40 wells</td>
<td>3020-09 A</td>
<td>40</td>
<td>9.34</td>
<td>373.60</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK AND FLARE SERVING 40 OIL PRODUCTION WELLS (MCKITTICK OILFIELD)</td>
</tr>
<tr>
<td>S-1129-386-20</td>
<td>120 wells</td>
<td>3020-09 A</td>
<td>120</td>
<td>9.34</td>
<td>1,120.80</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR COLLECTION PIPING NETWORK SERVING 119 STEAM DRIVE WELLS, 1 CYCLIC WELL AND WET LACT SEPARATOR VESSEL/PERMIT S-1129-867 (NORTH MIDWAY)</td>
</tr>
<tr>
<td>S-1129-692-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-693-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-694-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-695-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-696-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-697-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-698-4</td>
<td>140 bhp IC engine</td>
<td>3020-10 B</td>
<td>1</td>
<td>117.00</td>
<td>117.00</td>
<td>A</td>
<td>140 BHP DETROIT-ALLISON MODEL #50437001 DIESEL-FIRED IC ENGINE USED TO START A GAS TURBINE</td>
</tr>
<tr>
<td>S-1129-864-10</td>
<td>200 TEOR wells</td>
<td>3020-09 A</td>
<td>200</td>
<td>9.34</td>
<td>1,868.00</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH A MAXIMUM OF 200 CLOSED CASING VENT STEAM-ENHANCED WELLS AND PRODUCTION FACILITIES INCLUDING AUTOMATIC WELL TEST VESSEL(S), MASTER TRAP VESSEL, COMPRESSOR(S), COOLERS AND CHILLER(S) WITH VAPOR PIPING FROM '863 AND '866; AND TO TEOR PERMIT S-1128-115</td>
</tr>
<tr>
<td>S-1129-865-2</td>
<td>35,280 gallons</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>1110 BBL GAS/LIQUID SEPARATOR V-100 VENTED TO TEOR SYSTEM S-1129-864</td>
</tr>
<tr>
<td>S-1129-866-2</td>
<td>35,280 gallons</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>906 BBL GAS/LIQUID SEPARATOR VESSEL V-200 VENTED TO TEOR SYSTEM S-1129-864</td>
</tr>
<tr>
<td>S-1129-867-1</td>
<td>49,980 gallons</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>1190 BBL (49,980 GALLONS) (12.5 FT DIA X 50 FT) HEAVY CRUDE OIL WET LACT SEPARATOR VESSEL AND ASSOCIATED PIPING AND COMPONENTS, VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1129-386</td>
</tr>
</tbody>
</table>

Number of Facilities Reported: 1
ATTACHMENT D

EPA AND FACILITY COMMENTS/DISTRICT RESPONSE
EPA Comments/District Response

EPA submitted comments regarding Chevron USA Inc (Facility S-1129) proposed Title V Permit renewal (Project S-1063774). A copy of the December 20, 2011 email containing these comments is available at the District.

Comment 1:

The District’s evaluation of CAM (Part 64 applicability) begins on page 45 of the District’s evaluation. Please review all permits for tanks connected to a vapor recovery system and all TEOR systems for CAM applicability using the methodology EPA has outlined below. When presenting the potential-to-emit (PTE), the assumptions, emissions estimate, and calculation method used must be provided and then compared to the major source threshold.

For the permits with fixed roof tanks equipped with vapor recovery systems, the District determined that the systems are not subject to CAM requirements since the systems do not meet the CAM definition of a control device. EPA notes that in numerous cases where the equipment includes vapor recovery, the evaluation states that “…vapor control system is a collection system rather than a control device” and is therefore not subject to CAM.

This proposed permit has numerous tanks equipped with vapor recovery systems that EPA believes may be subject to CAM and for which a more detailed CAM applicability determination is required. In general, for tanks connected to a vapor recovery system, there are three parts to the system. First there is the storage tank which is the emitting source. The control device then consists of two parts, the capture and collection system, and finally the device that condenses or destroys the captured emissions. It is not clear from the current CAM evaluation whether any of the permitted vapor recovery systems are vented to control devices, but it is reasonable to expect that most systems are vented to some type of control device. The vapor recovery systems are not inherent process equipment because they are required to control emissions and do not affect the ability to operate a storage tank. Thus to properly evaluate CAM applicability the District must determine the uncontrolled emission rates from the emission units to determine if the emissions are over the major source thresholds. Any fugitive emissions from the capture and control system must be included in the emission rates.

Please review all permits for all tanks connected to a vapor recovery system for CAM applicability using the methodology EPA has outlined above and revise the CAM evaluation section as necessary.

Comment 2:

The TEOR systems operate in a very similar manner, but the uncontrolled emissions are coming from the off-gassing of the steam enhanced wells. The control device again
consists of two parts, the capture and collection system and the device that destroys the captured emissions. For these permits, the emissions are vented to a flare that destroys the VOC emissions.

In both cases there is an emission unit (the tanks or steam enhanced wells) and a required capture/collection and control system. In both cases the emissions from the emission units is required to be controlled and emission control devices (which includes the capture and collection system) are installed. Thus to properly evaluate CAM applicability, the District must determine the uncontrolled emission rates from the emission units and the post control emission rates from the control devices. Any fugitive emissions from the capture and control system must be included in the post control emission rates.

Response to Comment 1 and 2:

Response to EPA CAM comment for oil production vapor control systems:

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 reduces 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.

Comment 3: Permit Units S-1129-47-12, -48-12, -49-12, -53-11, -54-12. and -55-11

A. Conditions # 13 or 41 of these permits pertain to Acid Rain Program requirements. The condition lists the types of units that are not "affected units" and are therefore not subject to the Acid Rain Program. It is not appropriate to list the non-applicability criteria as part of this permit condition. Instead an evaluation of the Acid Rain Program requirements should be included
within the Districts evaluation document. The evaluation document is the appropriate place to explain which of these criteria the emission unit falls under, and is therefore not subject to the Acid Rain Program requirements. EPA notes that as written it is impossible to determine which of these criteria the source falls under, and no evaluation is made if the source still meets the criteria today. Please provide a complete Acid Rain Program applicability analysis in the District’s evaluation document. On the basis of that evaluation, it would then be appropriate to provide a permit shield in the permit conditions for this emission unit.

**District Response Comment 3A:**

Compliance with the Acid Rain Program was established under the Initial Title V Permit (Project S-960999). Since there have been no changes in these requirements, the Acid Rain Program was not addressed in the Title V Renewal evaluation. Therefore, no changes have been made.

B. Each of these permits contains conflicting conditions regarding the use of PPUC quality natural gas. Condition 1 of each permit states that the units shall be fired “exclusively” on PUC-quality NG with a sulfur content of less than or equal to 0.017% by weight. Yet other conditions provide what the source must do if the unit is fire on gas that is not PUC quality. For example, Condition 2 of Permit Unit 54 provides that the turbine shall be fired “exclusively” with PUC-quality NG or equivalent with total sulfur content of less than or equal to 1.0 gr S/100 scf of gas. These conditions inherently conflict in that one says PUC-quality NG must be used exclusively and the other says that “equivalent” gas can be used. In addition, since PUC quality NG gas is allowed to have up to 5.0 gr S/100 dsf of gas, it is not clear what the actual sulfur content limit is on the NG. Please review these conditions and revise as necessary to ensure the conditions ensure compliance with all applicable requirements.

**Districts Response to Comment 3B:**

These conditions are written to allow the facility to use their own natural gas as long as it does not exceed the sulfur content of PUC-regulated natural gas. We refer to the natural gas that meets the sulfur limit of PUC-regulated natural gas as PUC-quality natural gas. The testing conditions require the facility to test for sulfur content when they are not using natural gas that is PUC-regulated to demonstrate it is PUC-quality.
Facility Comments/District Response

Chevron USA Inc submitted comments regarding their proposed Title V Permit renewal (Project S-1063774). A copy of the December 20, 2011 letter containing these comments is available at the District.

Summary of Chevron's general comments, and the District's responses to these general comments:

1. The abbreviated review period constitutes a violation of Chevron's right to procedural due process and an arbitrary and capricious abuse of discretion on the part of the District.

Response: The District disagrees with this assertion. The District followed the rules and procedures outlined in SIP approved District Rule 2530, and in fact went beyond these requirements by extending the comment period and allowing Chevron almost twice as long as required to review the proposed permits, and coordinating a special electronic download of the proposed permits and conditions to their computer system.

2. Failure to incorporate the most current underlying applicable requirements.

Response: The District will address specific instances of this that are identified.

3. Errors in transcribing applicable requirements into the proposed permit.

Response: The District will address specific instances of this that are identified.

4. Excessive monitoring, recordkeeping or reporting provisions.

Response: The District will address specific instances of this that are identified.

5. The District should continue streamlining Chevron's permits in order to enhance efficiency.

Response: Comment noted
Comments Contained in Attachment 3

S-1129-0-2

Facility Comment:

a) Condition 11, add double space for beginning of new sentences rather than single space.

b) Condition 38, Use version without plural form of "permits", which would be "When a term is not defined in a Title V permit condition, the definite in the rule cited as the origin and authority for the condition in a Title V permit shall apply."

District Response:

Condition 11 and 38 will be modified as proposed above.

S-1129-47-12, '-48-12, and '-49-12

Facility Comment:

Combine Condition 47 with proposed permit condition 41.

Condition 41: 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. [40 CFR Subpart A 60.2, District NSR Rule]

Condition 47: The duration of each startup and shutdown shall not exceed 2 hours. [District Rule 4703, 5.3.3.1]

District Response:

Condition 47 will be included with condition 41. Furthermore, condition 41 will be revised to remove the reference to the definition of startup and shutdown from 40 CFR Subpart A 60.2 since condition 45 and 46 already define startup and shutdown.

Revised Condition 41: Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per
occurrence. [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule]

S-1129-53-11, and '54-12

Facility Comment:

Combine Condition 47 with proposed permit condition 37.

Condition 37: **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.** [40 CFR Subpart A 60.2, District NSR Rule]

Condition 47: **The duration of each startup and shutdown shall not exceed 2 hours.** [District Rule 4703, 5.3.3.1]

District Response:

Condition 47 will be included with condition 37. Furthermore, condition 41 will be revised to remove the reference to the definition of startup and shutdown from 40 CFR Subpart A 60.2 since condition 45 and 46 already define startup and shutdown.

Revised Condition 37: **Startup and shutdown of gas turbine engine shall not exceed a time period of two hours and two hours, respectively, per occurrence.** [40 CFR Subpart A 60.2, District Rule 4703, and District NSR Rule]

S-1129-55-11

Facility Comment:

Need current permit S-1129-55-12 conditions 1, 2, and 3 added back onto permit.

Condition 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]
Condition 2:  The fuel supply line shall be physically disconnected from this unit. [District Rule 4703]

Condition 3:  This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703]

District Response:

Conditions 1, 2, and 3 from the current permit S-1129-55-12 will be added back onto the proposed permit. In addition the equipment description will be updated to match the current permit. The equipment description will read,

NON-COMPLIANT DORMANT 3.5 MW COMBINED CYCLE GAS TURBINE TOPPING CYCLE COGENERATION NORTH MIDWAY UNIT #9

S-1129-225-8

Facility Comment:

a) Remove period from the end of the equipment description.

b) The throughput limit on condition 3 is incorrect, and dates back to permit -225-3. Use current permit -225-7 condition 3 wording "Annual volume of liquids introduced into tank shall not exceed 960,000 barrels per year."

c) Proposed condition S-1129-225-8 #1 contains vapor pressure limit of 0.23 psi using Host method which is allowed by Rule 4623. An additional condition is not needed.

Condition 1:  Host vapor pressure (ROC - C2) of any organic liquid introduced to the tank shall not exceed 0.23 psia. [District NSR Rule]

Condition 12:  The 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]
District Response:

a) The period will be removed from the equipment description.

b) Throughput limit on condition 3 has been corrected to 960,000 barrels per year.

c) Condition 12 is redundant and will be removed from the permit. Condition 1 will be revised to include Rule 4623 as a rule reference.