JAN 3, 2012

Larry Landis
Chevron U.S.A., Inc
P.O. Box 1392
Bakersfield, CA 93301

Re: Notice of Final Action - Title V Permit Renewal
District Facility # S-1131
Project # S-1063775

Dear Mr. Landis:

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

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

Sincerely,

David Warner
Director of Permit Services

DW:KR/st
Enclosure
JAN 24 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-1131
Project # S-1063775

Dear Mr. Rios:

The District has issued the Final Title V Permit Renewal for Chevron U.S.A., Inc. This renewed Title V permit becomes effective on January 31, 2012. The preliminary decision for this project was made on November 7, 2011. A summary of the comments and the District’s response to each comment (included as an attachment to the revised application review) and public notice to be published approximately three days from the date of this letter are attached.

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

Sincerely,

[Signature]

David Warner
Director of Permit Services

DW:KR/st

Enclosure

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4900 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-8400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-5000 FAX: (559) 230-6081

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com
JAN 24 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-1131
   Project # S-1063775

Dear Mr. Tollstrup:

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

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

Sincerely,

David Warner
Director of Permit Services

DW:KR/st

Enclosure
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 U.S.A., Inc for its heavy oil and gas production operation located within the Heavy Oil Central Stationary Source of Kern County, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1063775, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.
# TABLE OF CONTENTS

I. PROPOSAL .......................................................................................................................... 2  
II. FACILITY LOCATION ........................................................................................................... 2  
III. EQUIPMENT LISTING ....................................................................................................... 3  
IV. GENERAL PERMIT TEMPLATE USAGE ............................................................................ 3  
V. SCOPE OF EPA AND PUBLIC REVIEW ............................................................................... 3  
VI. FEDERALLY ENFORCEABLE REQUIREMENTS ................................................................ 3  
VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE .................................................... 7  
VIII. PERMIT REQUIREMENTS .............................................................................................. 7  
IX. PERMIT SHIELD .............................................................................................................. 111  
X. ATTACHMENTS ............................................................................................................... 112

A. CURRENT OPERATING PERMITS 
B. DETAILED FACILITY LIST 
C. APPLICANT COMMENTS AND DISTRICT RESPONSE 
D. EPA COMMENTS AND DISTRICT RESPONSE 
E. FINAL RENEWED TITLE V OPERATING PERMIT
FINAL TITLE V PERMIT RENEWAL EVALUATION
Heavy Oil Central Production

Engineer: Kris Rickards
Date: January 12, 2012

Facility Number: S-1131
Facility Name: Chevron U.S.A., Inc.
Mailing Address: PO Box 1392
Bakersfield CA 93302

Contact Name: Lance Erickson
Phone: 661-654-7145

Responsible Official: William Fall
Title: Health, Environment, & Safety Manager

Project #: S-1063775
Deemed Complete: September 21, 2006

I. PROPOSAL

Chevron U.S.A., Inc. (hereafter referred to as CUSA) was issued a Title V permit on December 31, 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

CUSA’s operation is located within the Heavy Oil Central Stationary Source 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 April 21, 2011)

- District Rule 4101, Visible Emissions (amended February 17, 2005)

- District Rule 4305, Boilers, Steam Generators, and Process Heaters—Phase 2 (amended August 21, 2003)


- District Rule 4307, Boilers, Steam Generators, and Process Heaters— 2.0 MMBtu/hr to 5.0 MMBtu/hr (amended May 19, 2011)

- District Rule 4311, Flares (amended June 18, 2009)

- District Rule 4351, Boilers, Steam Generators, and Process Heaters—Phase 1 (amended August 21, 2003)
• District Rule 4401, **Steam-Enhanced Crude Oil Production Wells**
  (amended June 16, 2011)

• District Rule 4601, **Architectural Coatings**
  (amended December 17, 2009)

• District Rule 4621, **Gasoline Transfer into Stationary Storage Containers,**
  **Delivery Vessels and Bulk Plants**
  (amended December 20, 2007)

• District Rule 4622, **Gasoline Transfer into Motor Vehicle Fuel Tanks**
  (amended December 20, 2007)

• District Rule 4623, **Storage of Organic Liquids**
  (amended May 19, 2005)

• District Rule 4701, **Internal Combustion Engines – Phase 1**
  (amended August 21, 2003)

• District Rule 4702, **Internal Combustion Engines – Phase 2**
  (amended August 18, 2011)

• District Rule 4703, **Stationary Gas Turbines**
  (amended September 20, 2007)

• District Rule 8011, **General Requirements**
  (amended August 19, 2004)

• District Rule 8021, **Construction, Demolition, Excavation, Extraction, and Other**
  **Earthmoving Activities**
  (amended August 19, 2004)

• District Rule 8031, **Bulk Materials**
  (amended August 19, 2004)

• District Rule 8041, **Carryout and Trackout**
  (amended August 19, 2004)

• District Rule 8051, **Open Areas**
  (amended August 19, 2004)

• District Rule 8061, **Paved and Unpaved Roads**
  (amended August 19, 2004)
• District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas
  (amended September 16, 2004)

• 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas
  Turbines
  (amended February 24, 2006)

• 40 CFR Part 60, Subpart III, Standards of Performance for Stationary
  Compression Ignition Internal Combustion Engines
  (adopted July 11, 2006)

• 40 CFR 82, Subpart B, Stratospheric Ozone
  (amended June 18, 2008)

• 40 CFR 82, Subpart F, Stratospheric Ozone
  (amended June 18, 2008)

B. Rules No Longer Referenced on PTOs

• 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial -
  Commercial - Institutional Steam Generating Units

• 40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for
  Petroleum Liquids for which Construction, Reconstruction, or Modification

• 40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for
  Petroleum Liquids for which Construction, Reconstruction, or Modification
  Commenced After May 18, 1978, and Prior to July 23, 1984

C. Rules Adopted

• District Rule 4320, Advanced Emission reduction Options for Boilers, Steam
  Generators, and Process Heaters Greater than 5.0 MMBtu/hr (adopted October
  16, 2008)

• 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary
  Combustion Turbines
  (adopted July 6, 2006 and amended March 20, 2009)

• 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air
  Pollutants for Stationary Reciprocating Internal Combustion Engines (adopted
  June 15, 2004 and amended March 9, 2011)


D. Rules Not Updated

- District Rule 1080, Stack Monitoring (amended December 17, 1992)

- District Rule 1081, Source Sampling (amended December 16, 1993)

- District Rule 2010, Permits Required (amended December 17, 1992)

- District Rule 2031, Transfer of Permits (amended December 17, 1992)

- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)

- District Rule 2080, Conditional Approval (amended December 17, 1992)

- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001)

- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)

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

- District Rule 4402, Crude Oil Production Sumps (amended December 17, 1992)

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

- 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984

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 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:

District Rule 4102, Nuisance

Condition 42 of permit unit S-1131-0-2 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 rule was amended in December 20, 2007. 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 3.25, 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; however, there were changes made to the requirements of some permit units to update permit language.

The term “gas-tight” or “gas tight” on several permits were updated to read “leak-free” since “gas-tight” has been replaced by “leak-free” in District Rule 4623 (though Rule 4623 will address this change there are several permits that use this definition out of the rule but are exempt from the rule and cite Rule 2201 instead).

C. District Rule 4101 - Visible Emissions

District Rule 4101 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is 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 Rule 4101. The rule was amended in February 17, 2005.

The following condition will ensure compliance with this rule (all redundant Rule 4101 conditions have been removed from other permits):

- 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 (11/15/01), 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]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>23</td>
</tr>
</tbody>
</table>
D. District Rule 4305 - Boilers, Steam Generators, and Process Heaters – Phase 2

This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour that is fired with gaseous and/or liquid fuels.

This rule was updated recently to incorporate allowances for increased emissions due to start-up and shutdown periods.

All units this rule applies to are also either compliant with or dormant for District Rule 4306, Boilers, Steam Generators, and Process Heaters – Phase 3. Since emissions limits of District Rule 4306 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 requirements will satisfy requirements of District Rule 4305 (rule citations for all Rule 4305 conditions are added to permits where applicable).

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 that is fired with gaseous and/or liquid fuels.

Steam generators listed in the table below are designated non-compliant dormant, as such, they will not be operated; therefore, emission limits, monitoring provisions, and testing requirements of this rule will be satisfied when the units are modified to operate in compliance with this rule. The conditions below will be listed on the permits to ensure that compliance with this rule is achieved prior to operation:

- 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]
- The fuel supply line shall be physically disconnected from this unit. [District Rule 4306].
- 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 Rule 4306]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-65, '77, '94, '-858, '-941, '-943, '-966, '-976, '-992, '-993, '-994, '-998, '-1000, '-1001, '-1002, '-1003, '-1004, and '-1016</td>
<td>1-3</td>
</tr>
</tbody>
</table>
The following units are compliant with Rule 4306 and with Rule 4320, *Advanced Emission reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306 (rule citations for all Rule 4306 conditions are added to permits where applicable).

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
</tr>
</thead>
</table>

Rule 4306 applies to the remaining steam generators, which have also received ATCs to comply with District Rule 4320 (no streamlining or reordering of conditions has been performed for these ATCs as Chevron will implement the Rule 4320 compliant ATCs shortly after this renewal is completed), that will be implemented according to the compliance schedule listed in that rule. Currently Rule 4306 is the most stringent rule that is applicable to these units and will be evaluated as follows.

**Section 5.1** requires that except for units subject to Sections 5.2, NOx and carbon monoxide (CO) emissions shall not exceed the limits specified in the following table. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 3.00 percent by volume stack gas oxygen. Emission concentrations shall be corrected to 3.00 percent oxygen in accordance with Section 8.1.

With a maximum heat input of 62.5 MMBtu/hr for the oilfield steam generators, the applicable emission limit category is listed in Section 5.1.1, Table 1, Category C, from District Rule 4306.

<table>
<thead>
<tr>
<th>Rule 4306 Emissions Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>C. Oilfield Steam Generators</td>
</tr>
</tbody>
</table>
For these units:

- the proposed NO\textsubscript{x} emission factor is 15 ppmvd @ 3% O\textsubscript{2} (0.0182 lb/MMBtu), and

- the proposed CO emission factors are between 27 ppmvd @ 3% O\textsubscript{2} (0.02 lb/MMBtu) and 51.4 ppmvd @ 3% O\textsubscript{2} (0.038 lb/MMBtu).

Therefore, compliance with Section 5.1 of District Rule 4306 is expected. The following condition will ensure compliance with this section:

- Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO\textsubscript{x} @ 3% O\textsubscript{2} (or 0.0182 lb-NO\textsubscript{x}/MMBtu), or XX ppmvd CO @ 3% O\textsubscript{2} (or X.XXX lb-CO/MMBtu). [District Rules 2201; 4305, 5.1; and 4306, 5.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78 and '908</td>
<td>7</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>8</td>
</tr>
<tr>
<td>S-1131-877</td>
<td>13</td>
</tr>
<tr>
<td>S-1131-879, '883, and '884</td>
<td>6</td>
</tr>
<tr>
<td>S-1131-880</td>
<td>12</td>
</tr>
<tr>
<td>S-1131-997</td>
<td>5</td>
</tr>
</tbody>
</table>

Section 5.2 applies to units with an annual fuel use less than 9 billion Btu heat input per calendar year. No units are limited this way; therefore, this section is not applicable.

Section 5.3 requires that on and after the full compliance schedule specified in Section 7.1, the applicable emission limits of Sections 5.1, 5.2.2 and 5.2.3 shall not apply during start-up or shutdown provided an operator complies with the requirements specified below.

1) The duration of each start-up or each shutdown shall not exceed two hours, except as provided in Section 5.3.3.

2) The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown.

3) Notwithstanding the requirement of Section 5.3.1, an operator may submit an application for a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions in specified in Sections 5.3.3.1 through 5.3.3.3.
The following conditions will be listed on the permits to ensure compliance:

- 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3]

- 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78 and -881</td>
<td>10 and 11</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>10</td>
</tr>
<tr>
<td>S-1131-877</td>
<td>14 and 15</td>
</tr>
<tr>
<td>S-1131-879, -883, and -884</td>
<td>8 and 9</td>
</tr>
<tr>
<td>S-1131-880</td>
<td>13 and 14</td>
</tr>
<tr>
<td>S-1131-997</td>
<td>8</td>
</tr>
</tbody>
</table>

Section 5.4.1 applies to units that simultaneously fire on gaseous and liquid fuels. These units are fired exclusively on gaseous fuel; therefore this section is not applicable.

Section 5.4.2 requires that permit units subject to District Rule 4306, Section 5.1 emissions limits shall either install and maintain Continuous Emission Monitoring (CEM) equipment for NOx, CO and O2, or install and maintain APCO-approved alternate monitoring.

In order to satisfy the requirements of District Rule 4306, Chevron periodically monitors NOx, CO, and O2 exhaust emissions concentrations, using a portable analyzer. The following conditions are listed on the permits to ensure compliance with this section:

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

• All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78, '877, and '880</td>
<td>1-3</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>20-22</td>
</tr>
<tr>
<td>S-1131-879 and '997</td>
<td>17-19</td>
</tr>
<tr>
<td>S-1131-883, '884, and '908</td>
<td>18-20</td>
</tr>
</tbody>
</table>

Since the units are not subject to the requirements listed in Section 5.2.1 or 5.2.2, they are not subject to Section 5.4.3 requirements.

Since the units are not subject to the requirements of category H (maximum annual heat input between 9 billion and 30 billion Btu/year) listed in Section 5.1.1, they are not subject to Section 5.4.4 requirements.

Section 5.5.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.1. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).

Therefore, the following condition will be listed on the permits to ensure compliance:

• The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1; and 4306, 5.5.1]
<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78</td>
<td>19</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>23</td>
</tr>
<tr>
<td>S-1131-877</td>
<td>16</td>
</tr>
<tr>
<td>S-1131-879</td>
<td>21</td>
</tr>
<tr>
<td>S-1131-880</td>
<td>15</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>25</td>
</tr>
<tr>
<td>S-1131-883, ‘-884, and ‘-997’</td>
<td>22</td>
</tr>
</tbody>
</table>

Section 5.5.2 requires that 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.

Therefore, the following permit condition will be listed on as follows:

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; and 4306, 5.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78</td>
<td>20</td>
</tr>
<tr>
<td>S-1131-883, ‘-884, and ‘-997’</td>
<td>23</td>
</tr>
<tr>
<td>S-1131-877 and ‘-880’</td>
<td>17</td>
</tr>
<tr>
<td>S-1131-879</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>26</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>27</td>
</tr>
</tbody>
</table>

Section 5.5.3 applies to units equipped with CEMS. None of these units are equipped with CEMS; therefore, this section is not applicable.

Section 5.5.4 requires that for emissions monitoring pursuant to Sections 5.4.2, 5.4.2.1, and 6.3.1 using a portable NOx analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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.
The following condition will be listed on the permits to ensure compliance:

- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78, ‘-877, and ‘-880</td>
<td>3</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-879 and ‘-997</td>
<td>19</td>
</tr>
<tr>
<td>S-1131-883, ‘-884, and ‘-908</td>
<td>20</td>
</tr>
</tbody>
</table>

Section 5.5.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

This requirement is identical to that described in Rule 1081, Section 6.1. The following condition is listed on the facility-wide permit and will ensure compliance with this section:

- All required source testing shall conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>3</td>
</tr>
</tbody>
</table>

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.3 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

The following condition will be listed on the permits to ensure compliance:

- 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]
<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78</td>
<td>40</td>
</tr>
<tr>
<td>S-1131-883 and '884</td>
<td>36</td>
</tr>
<tr>
<td>S-1131-877 and '880</td>
<td>38</td>
</tr>
<tr>
<td>S-1131-879</td>
<td>33</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>39</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>37</td>
</tr>
<tr>
<td>S-1131-997</td>
<td>34</td>
</tr>
</tbody>
</table>

**Section 6.1.2** requires that the operator of a unit subject to Section 5.2 shall record the amount of fuel use at least on a monthly basis. Since these units are not subject to the requirements listed in Section 5.2, this section is not applicable.

**Section 6.1.3** requires that the operator of a unit subject to Section 5.2.1 or 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. The units are not subject to Sections 5.2.1 or 6.3.1; therefore, the requirements of this section do not apply.

**Section 6.2** identifies the following test methods as District-approved source testing methods for the pollutants listed:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units</th>
<th>Test Method Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel HHV</td>
<td>Btu/scf</td>
<td>ASTM D 1826 or D 1945 in conjunction with D 3588</td>
</tr>
<tr>
<td>NOx</td>
<td>ppmv</td>
<td>EPA Method 7E or ARB Method 100</td>
</tr>
<tr>
<td>NOy</td>
<td>lb/MMBtu</td>
<td>EPA Method 19</td>
</tr>
<tr>
<td>CO</td>
<td>ppmv</td>
<td>EPA Method 10 or ARB Method 100</td>
</tr>
<tr>
<td>Stack Gas O₂</td>
<td>%</td>
<td>EPA Method 3 or 3A, or ARB Method 100</td>
</tr>
<tr>
<td>Stack Gas Velocities</td>
<td>ft/min</td>
<td>EPA Method 2</td>
</tr>
<tr>
<td>Stack Gas Moisture Content</td>
<td>%</td>
<td>EPA Method 4</td>
</tr>
</tbody>
</table>

Chevron has requested additional test methods as allowed by District Policy APR-1710 for testing of SOₓ (EPA method 19), fuel gas sulfur content (ASTM D1072, D3246, D4084 or grab sample analysis by double GC), and PM (EPA Methods 5 – both filterable and condensable¹, 201A and 202, or CARB Method 5).

¹ District policy, APR-1715, requires both filterable and condensable PM to be considered and clarifies that EPA also requires this.
The following permit condition will ensure compliance with this section:

- The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubber for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78, ‘-877, and ‘-880</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>23</td>
</tr>
<tr>
<td>S-1131-883 and ‘-884</td>
<td>21</td>
</tr>
<tr>
<td>S-1131-879 and ‘-997</td>
<td>20</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>25</td>
</tr>
</tbody>
</table>

**Section 6.3.1** requires that this unit be tested to determine compliance with the applicable requirements of section 5.1 and 5.2.3 not less than once every 12 months. Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

The following permit condition will ensure compliance with this section:

- 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 4305, 6.3, 4306, 6.3, and 4351, 6.3.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78</td>
<td>16</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>13</td>
</tr>
<tr>
<td>S-1131-877 and ‘-880</td>
<td>18</td>
</tr>
<tr>
<td>S-1131-879, ‘-883, and ‘-884</td>
<td>11</td>
</tr>
<tr>
<td>S-1131-908</td>
<td>21</td>
</tr>
<tr>
<td>S-1131-997</td>
<td>10</td>
</tr>
</tbody>
</table>
In addition, since the applicant has proposed to use pre-approved Alternate Monitoring Scheme “A” using a portable analyzer, the tune-up requirements listed in Section 6.3.1 are not applicable to the steam generator. Section 6.3.1 also requires that, during the 36-month source testing interval, the owner/operator shall monthly monitor the operational characteristics recommended by the unit manufacturer. Since the pre-approved Alternate Monitoring Scheme “A” using a portable analyzer requires monthly monitoring of NOX, CO, and O2 exhaust emissions concentrations, operational characteristics monitoring requirement is satisfied, and no further discussion is required.

Section 6.3.2 allows that in lieu of compliance with Section 6.3.1, compliance with the applicable emission limits in Sections 5.1 or 5.2.3 shall be demonstrated by submittal of annual emissions test results to the District from a unit or units that represents a group of units, provided:

1) All units in the group are initially source tested. The emissions from all test runs from units within the group are less than 90% of the permitted value, and the emissions do not vary greater than 25% from the average of all test runs; and
2) All units in a group are similar in terms of rated heat input, make and series, operational conditions, fuel used, and control method. No unit with a rated heat input greater than 100 MMBtu shall be considered as part of the group; and
3) The group is owned by a single owner and is located at a single stationary source; and
4) Selection of the representative unit(s) is approved by the APCO prior to testing; and
5) The number of representative units source tested shall be at least 30% of the total number of units in the group. The representative tests shall rotate each year so that within three years all units in the group have been tested at least once.
6) All units in the group shall have received the similar maintenance and tune-up procedures as the representative unit(s) as listed in the Permit to Operate. The operator shall submit to the APCO the specific maintenance procedures to be performed on each unit that will be included in the group for representative testing. Such maintenance procedures shall be specified in the Permit to Operate for units that are included in the group for representative testing. Any maintenance work on a unit which has no effect on emissions standards and which is not specified in the maintenance procedures shall be submitted to the APCO for approval before such unit can be included as part of the group for representative testing. Any unit that necessitates any maintenance work which has an effect on emission standards and is beyond the maintenance procedures identified in the Permit to Operate, shall not be included as part of the group for representative testing. The unit shall be source tested in accordance with the provisions of Section 6.3.1; and
7) Should any of the representative units exceed the required emission limits, each of the units in the group shall demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of Section 6.3.2.7 has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.1 or 6.3.2.

The following permit conditions will ensure compliance with this section:

- Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2.4; 4306, 6.3.2.4; and 4351, 6.3]

- The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305, 6.3.2.1 and 4306, 6.3.2.1]

- All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 4305, 6.3.2.6 and 4306, 6.3.2.6]

- All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 6.3.2.2 and 4306, 6.3.2.2]

- The number of representative units tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 6.3.2.5 and 4306, 6.3.2.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-78</td>
<td>35-39</td>
</tr>
<tr>
<td>S-1131-877 and '880</td>
<td>33-37</td>
</tr>
<tr>
<td>S-1131-879</td>
<td>25-29</td>
</tr>
<tr>
<td>S-1131-881 and '908</td>
<td>29-33</td>
</tr>
<tr>
<td>S-1131-883, '884, and '997</td>
<td>26-30</td>
</tr>
</tbody>
</table>
Section 6.4, Emission Control Plan (ECP)

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0 of District Rule 4306. Chevron has already submitted an ECP for these units. Therefore compliance with this section is expected.

F. District Rule 4307 - Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr

This rule limits NOx, CO, SO2 and PM10 emissions from boilers, steam generators and process heaters with heat rating of 2.0 MMBtu/hr up to and including 5.0 MMBtu/hr that are fired with gaseous and/or liquid fuels. Since the emissions unit listed on permit S-1131-1019 is designated non-compliant dormant, it will not be operated and emission limits, monitoring provisions, and testing requirements of this rule will be satisfied when the unit is modified to operate in compliance with this rule. The conditions below will be listed on the permit to ensure that compliance with this rule is achieved prior to operation:

- 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]

- The fuel supply line shall be physically disconnected from this unit. [District Rule 4307].

- 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 4307 and all other applicable District regulations. [District Rule 4307]


<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1019</td>
<td>1-3</td>
</tr>
</tbody>
</table>

G. District Rule 4311 – Flares

Rule 4311 limits the emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NOx), and sulfur from the operation of flares.

Section 5.1 states flares permitted to operate only during an emergency are not subject to the requirements of Section 5.6 and 5.7.

No flares in this project are designated emergency flares; therefore this section is not applicable.
Section 5.2 requires that the flame be present at all times when combustible gases are vented through the flare. The following condition will be listed on the ATCs to ensure compliance:

- A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>3</td>
</tr>
<tr>
<td>S-1131-1086 and ‘-1087</td>
<td>12</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>13</td>
</tr>
</tbody>
</table>

Section 5.3 requires that the flare outlet be equipped with an automatic ignition system, or operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. The following condition will be listed on the ATCs to ensure compliance:

- Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>4</td>
</tr>
<tr>
<td>S-1131-1086 and ‘-1087</td>
<td>13</td>
</tr>
</tbody>
</table>

- Flare shall be equipped with a natural gas-fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1108</td>
<td>14</td>
</tr>
</tbody>
</table>

Section 5.4 requires that except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The following condition will be listed on the ATCs to ensure compliance:

- Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rule 4311, 5.4]
Section 5.5 requires flares that use flow-sensitive automatic ignition systems and which do not use a continuous pilot flame to use purge gas for purging. The following condition will be listed on the ATCs to ensure compliance:

- If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311, 5.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>5</td>
</tr>
<tr>
<td>S-1131-1086 and ‘-1087</td>
<td>14</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>15</td>
</tr>
</tbody>
</table>

Section 5.6 states that open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares. Since no flares at this stationary source are Coanda effect flares, this section applies to all flares.

The following condition will ensure compliance with this section:

- Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>11</td>
</tr>
<tr>
<td>S-1131-1086 and ‘-1087</td>
<td>19</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>20</td>
</tr>
</tbody>
</table>

Section 5.7 states that ground-level enclosed flares meet the defined emission standards. The flares involved with this project are not ground-level enclosed flares; therefore, this section does not apply.

Section 5.8 states that flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. Subsection 6.5.1 requires the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour to submit a flare minimization plan (FMP) to the APCO for approval.
The operator has submitted a flare minimization plan that has been approved by the APCO.

**Section 5.9** applies to petroleum refinery SO\textsubscript{2} performance targets. These flares do not serve a petroleum refinery; therefore this section is not applicable to the flares at this stationary source.

**Section 5.10** requires the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 to monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate.

- Thermally Enhanced Oil Recovery (TEOR)/ vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>2</td>
</tr>
<tr>
<td>S-1131-1086 and '1087</td>
<td>11</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>12</td>
</tr>
</tbody>
</table>

**Section 5.11** requires the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr to monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.

- **Section 6.6** requires operators to monitor vent gas composition using one of the methods listed in 6.6.1 through 6.6.5.
- **Section 6.7** requires operators to monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored.
- **Section 6.8** requires that operators of any flare with a water seal to monitor and record the water level and pressure of the water seal that services each flare daily or as specified on the Permit to Operate. This stationary source does not operate any flares with a water seal; therefore this section is not applicable.
- **Section 6.9** requires that an operator comply with sections 6.9.1 through 6.9.4 as applicable.
- **Section 6.10** requires refinery flares be monitored by video. Since this stationary source does not engage in refining operations, this section is not applicable.
The following conditions will be listed on the permits to ensure compliance:

- Operator shall monitor vent gas composition using one of the five following methods: 1) Sampling vent gas pursuant to Rule 4311 Section 6.6.1, 2) Integrated sampling pursuant to Rule 4311 Section 6.6.2, 3) Operate continuous analyzers that meet the requirements of Rule 4311 Section 6.6.3, 4) Operate continuous analyzers employing gas chromatography pursuant to Rule 4311 Section 6.6.4, or 5) Monitor sulfur content using a colorimetric tube system, and monitor vent gas hydrocarbons pursuant to Rule 4311 Section 6.6.5. [District Rule 4311, 5.11, 6.6]

- If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Rule 4311 Section 5.11. [District Rule 4311, 5.11, 6.6]

- Operator shall monitor the volumetric flows of purge and pilot gases. [District Rule 4311, 5.11, 6.7]

- Operator shall report periods of monitor inoperation greater than 24 continuous hours by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 5.11, 6.9]

- During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311 Section 6.3.4. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 5.11, 6.9]

- Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 5.11, 6.9]

- All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>13-19</td>
</tr>
<tr>
<td>S-1131-1086 and 1-1087</td>
<td>21-27</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>22-28</td>
</tr>
</tbody>
</table>
Section 6.1 requires the following records to be retained on-site for a minimum of five years:

- Copy of the compliance determination conducted pursuant to Section 6.4.1
- Copy of the source testing result conducted pursuant to Section 6.4.2
- For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation
- Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section
- Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5
- Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10

The following condition will ensure compliance with this section:

- All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4311, 6.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>28</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>37</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>38</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>42</td>
</tr>
</tbody>
</table>

Section 6.2.1 requires the operator to notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.

The following condition will ensure compliance with this section:

- The operator shall notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>21</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>30</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>31</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>35</td>
</tr>
</tbody>
</table>
Section 6.2.2, effective on and after July 1, 2012, and annually thereafter, requires the operator of a flare subject to flare minimization plans pursuant to Section 5.8 to submit an annual report to the District that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following:

- The results of an investigation to determine the primary cause and contributing factors of the flaring event;
- Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented;
- If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and
- The date, time, and duration of the flaring event.

The following condition will ensure compliance with this section:

- Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that summarizes all reportable flaring events during the previous 12-month period. The report shall include the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>31</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>32</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>36</td>
</tr>
</tbody>
</table>

Section 6.2.3 effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period.
The report shall include the following:
- The total volumetric flow of vent gas in standard cubic feet for each day.
- Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6.
- If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month.
- If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.
- For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow.
- Flare monitoring system downtime periods, including dates and times.
- For each day and for each month provide calculated sulfur dioxide emissions.
- A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5.

The following condition will ensure compliance with this section:
- Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that includes the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>23</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>32</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>33</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>37</td>
</tr>
</tbody>
</table>
Section 6.3 lists test methods an operator can use to demonstrate compliance with this rule. Compliance with this section is expected.

Section 6.4 requires records of compliance with 5.6 to be provided to the District upon request and lists further requirement for enclosed flares, which Chevron does not operate at this stationary source. Compliance with this section is expected.

Section 6.5 requires operators of flares >5.0 MMBtu/hr to submit a flare minimization plan (FMP) by July 1, 2010. Chevron has submitted a FMP; therefore compliance with this section has been made.

Section 6.6 requires the operator to monitor vent gas composition using one of the following five methods as appropriate:

- Sampling that meets the following requirements:
  - If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours.
  - Samples shall be analyzed pursuant to Section 6.3.4.

- Integrated sampling that meets the following requirements:
  - If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less.
  - Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to Section 6.6.2.1, a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours.
  - Samples shall be analyzed pursuant to Section 6.3.4.

- Continuous analyzers that meet the following requirements:
  - The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur.
  - The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon.
  - Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale.
- Continuous analyzers employing gas chromatography that meet the following requirements:
  - The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide.
  - The gas chromatography system shall be maintained to be accurate within 5% of full scale.
  - Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested pursuant to a method in Section 6.3.4.

Additionally, if flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header.

The following condition will ensure compliance with this section:

- Vent gas composition shall be monitored using one of the methods outlined in Rule 4311, Section 6.6.1 through 6.6.5. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. [District Rule 4311, 6.6]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>24</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>33</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>34</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>38</td>
</tr>
</tbody>
</table>

Section 6.7 requires the operator to monitor the volumetric flows of purge and pilot gases with flow measuring devices. The following condition will ensure compliance with this section:

- Thermally Enhanced Oil Recovery (TEOR)/vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>2</td>
</tr>
<tr>
<td>S-1131-1086 and '1087</td>
<td>11</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>10</td>
</tr>
</tbody>
</table>

Section 6.8 requires operators of flares with water seals to monitor water level and pressure. This stationary source does not operate any flares with a water seal; therefore this section is not applicable.
Section 6.9 requires operators of flares to comply with the following as applicable:

- Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating.

- During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices.

- Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure.

- All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages.

The following conditions will ensure compliance with this section:

- Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9]

- During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9]
Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9]

All inline continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>25-27</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>27 and 34-36</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>27 and 35-37</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>28 and 39-41</td>
</tr>
</tbody>
</table>

Section 6.10 applies to operators of petroleum refinery flares. This stationary source does not refine petroleum products; therefore this section is not applicable.

H. District Rule 4320 – Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr

This rule limits NOx, CO, SO2 and PM10 emissions from boilers, steam generators and process heaters rated greater than 5 MMBtu/hr. This rule also provides a compliance option of payment of fees in proportion to the actual amount of NOx emitted over the previous year.

All steam generators at this facility are rated greater than 5 MMBtu/hr heat input. Therefore, this rule applies to all steam generators that are not non-compliant dormant or those discussed under Rule 4306 (units that have Rule 4320 compliant ATCs issued and are awaiting conversion to PTO).

Section 5.1 states that 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.

Chevron complies with Section 5.3 by paying an emissions fee; therefore the emission limits of Section 5.2 are not applicable.
Section 5.3 specifies the schedule and calculation method that is used to comply with Section 5.1.

The following conditions will be listed on the permits to ensure compliance with these sections:

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

- 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 4320, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '-63, '-64, '-66, '-67, '-68, '-69, '-70, and '-73</td>
<td>30 and 31</td>
</tr>
<tr>
<td>S-1131-99 and '-859</td>
<td>31 and 32</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>28 and 29</td>
</tr>
<tr>
<td>S-1131-82, '-95, and '-98</td>
<td>32 and 33</td>
</tr>
<tr>
<td>S-1131-987 and '-999</td>
<td>28 and 29</td>
</tr>
</tbody>
</table>

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

- 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;

- 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

- 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 SO2 emissions by at least 95% by weight; or limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% O2.

- 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.
The following units are limited to 1.0 gr-S/100 scf. The following condition will ensure compliance with this section:

- The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, and '912</td>
<td>1</td>
</tr>
</tbody>
</table>

The following units are limited to 5 gr-S/100 scf. The following condition will ensure compliance with this section:

- The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1132-8, S-1132-90, S-1131-885, S-1131-903, S-1131-909 and S-1131-1040. The combined fuel sulfur content from these units shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-987</td>
<td>1</td>
</tr>
</tbody>
</table>

- The operator shall fire the unit only on natural gas and gas from the following permit units: PTO S-1131-598, '885, '932, '958, '996, '1007, and '1008. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-999</td>
<td>1</td>
</tr>
</tbody>
</table>

The following units comply with this section by either limiting fuel sulfur content to 5 gr S/100 scf, reducing SOX emissions by 95%, or limiting exhaust SO2 to 9 ppmv. The following condition will ensure compliance with this section:

- The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr S/100 scf unless SOX is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201 and 4320, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-82, '95, '98, '99, and '859</td>
<td>1</td>
</tr>
</tbody>
</table>

Section 5.4.2 applies to liquid fuel firing units. These units are not permitted to burn liquid fuels; therefore, this section is not applicable.
Section 5.5 applies to units that burn less than 1.8 billion Btu/year. These units are not restricted to 1.8 billion Btu/year; therefore, this section is not applicable.

Section 5.6 states that the applicable emission limits of Sections 5.2 Table 1 and 5.5.2 shall not apply during start-up or shutdown provided an operator complies with the requirements specified in Sections 5.6.1 through 5.6.5.

The following conditions will ensure compliance with this section:

- 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1]

- 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '-63, '-64, '-66, '-67, '-68, '-69, '-70, '-73, '-82, '-95, '-98 '-912, '-987, and '-999</td>
<td>7 and 8</td>
</tr>
<tr>
<td>S-1131-99 and '-859</td>
<td>6 and 7</td>
</tr>
</tbody>
</table>

Section 5.7.1 requires that permit units subject to District Rule 4320, Section 5.2 shall both install and maintain an operational APCO approved Continuous Emission Monitoring System (CEMS) for NOx, CO and O2, or implement an APCO-approved alternate monitoring program. These units are not required to comply with Section 5.2; therefore this section is not applicable.

Section 5.7.6 requires operators complying with Sections 5.4.1.1 or 5.4.1.2 to provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit to Operate.

The following conditions are listed on the permits to ensure compliance with this section:

- If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7]
If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-99 and '859</td>
<td>11 and 12</td>
</tr>
</tbody>
</table>

Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, and '912</td>
<td>24</td>
</tr>
<tr>
<td>'987, and '999</td>
<td>24</td>
</tr>
</tbody>
</table>

Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-82, '95, and '98</td>
<td>26</td>
</tr>
<tr>
<td>S-1131-99 and '859</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 5.8.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu), emission limits or the concentration (ppmv) emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).
Therefore, the following condition will be listed on the ATCs as follows:

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

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, '82, '95, '98, '912, '987, and '999</td>
<td>9</td>
</tr>
<tr>
<td>S-1131-99 and '859</td>
<td>8</td>
</tr>
</tbody>
</table>

Section 5.8.2 requires that 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. Therefore, the following permit condition will be listed on the ATCs as follows:

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, '82, '95, '98, '912, '987, and '999</td>
<td>10</td>
</tr>
<tr>
<td>S-1131-99 and '859</td>
<td>9</td>
</tr>
</tbody>
</table>

Section 5.8.3 applies to units equipped with CEMS. No units for which Rule 4320 is applicable are equipped with CEMS; therefore the requirements of this section are not applicable.

Section 5.8.4 lists requirements for units complying with Section 5.7.1. These units are not required to comply with this section; therefore, this section is not applicable.

Section 5.8.5 lists requirements for units complying with Section 6.3.1, which applies to units subject to Section 5.2. These units are not required to comply with Section 5.2; therefore, this section is not applicable.
Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

A permit condition will be listed on the permit as follows:

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, ‘-63, ‘-64, ‘-66, ‘-67, ‘-68, ‘-69, ‘-70, ‘-73, ‘-99, ‘-859, and ‘-912</td>
<td>25</td>
</tr>
<tr>
<td>S-1131-82, ‘-95, and ‘-98</td>
<td>27</td>
</tr>
<tr>
<td>S-1131-987 and ‘-999</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Units</th>
<th>Test Method Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel HHV</td>
<td>Btu/scf</td>
<td>ASTM D 1826 or D 1945 in conjunction with D 3588</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>ppmv</td>
<td>EPA Method 7E or ARB Method 100</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>lb/MMBtu</td>
<td>EPA Method 19</td>
</tr>
<tr>
<td>CO</td>
<td>ppmv</td>
<td>EPA Method 10 or ARB Method 100</td>
</tr>
<tr>
<td>Stack Gas O\textsubscript{2}</td>
<td>%</td>
<td>EPA Method 3 or 3A, or ARB Method 100</td>
</tr>
<tr>
<td>Stack Gas Velocities</td>
<td>ft/min</td>
<td>EPA Method 2</td>
</tr>
<tr>
<td>Stack Gas Moisture Content</td>
<td>%</td>
<td>EPA Method 4</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>lb/MMBtu</td>
<td>EPA Method 6, 6C, 8 or ARB Method 100</td>
</tr>
<tr>
<td>H\textsubscript{2}S in Fuel</td>
<td>ppmv</td>
<td>EPA Method 11 or 15</td>
</tr>
</tbody>
</table>
Chevron has requested additional test methods as allowed by District Policy APR-1710 for testing of SOx (EPA method 19), fuel gas sulfur content (ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC), and PM (EPA Methods 5 – both filterable and condensable\(^2\), 201A and 202, or CARB Method 5).

The following permit condition will be listed to ensure compliance with this section:

- The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4.

[District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, '912, '987, and '999</td>
<td>15</td>
</tr>
<tr>
<td>S-1131-82, '95, and '98</td>
<td>17</td>
</tr>
<tr>
<td>S-1131-99 and '859</td>
<td>16</td>
</tr>
</tbody>
</table>

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of Section 5.2. These units are not subject to the requirements of section 5.2; therefore this section is not applicable.

Section 6.3.2 allows that in lieu of compliance with Section 6.3.1, compliance with the applicable emission limits in Sections 5.1 or 5.2.3 shall be demonstrated by submittal of annual emissions test results to the District from a unit or units that represent a group of units. Chevron does not use representative testing on any of these steam generators; therefore, this section is not applicable.

Section 6.4 requires the permittee to submit an emissions control plan. Chevron has already submitted a plan; therefore the requirements of this section are not applicable.

\(^2\) District policy, APR-1715, requires both filterable and condensable PM to be considered and clarifies that EPA also requires this.
I. District Rule 4351 – Boilers, Steam Generators, and Process Heaters – Phase 1

This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour that is fired with gaseous and/or liquid fuels, and is included in a major NOx source. This rule does not apply to any unit located west of Interstate Highway 5 located in Fresno, Kern, or Kings county.

All steam generators at this facility (no boilers exist and one process heater is operated by Chevron but is <5.0 MMBtu/hr, so this rule does not apply) are rated greater than 5 MMBtu/hr and are located East of Highway 5; therefore, these units are subject to District Rule 4351, Boilers, Steam Generators and Process Heaters – Phase 1.

In addition, these units are also subject to District Rule 4305, Boilers, Steam Generators and Process Heaters – Phase 2.

All units this rule applies to are compliant with District Rule 4305, Boilers, Steam Generators, and Process Heaters – Phase 2. Since emissions limits of District Rule 4305 and all other requirements are equivalent or more stringent than District Rule 4351 requirements, compliance with District Rule 4305 requirements will satisfy requirements of District Rule 4351 (rule citations for all Rule 4351 conditions are added to permits where applicable).

J. 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 well vents. This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.

The following condition will ensure compliance with this rules leak definition:

- Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20]

All condition mapping will appear at the end of the Rule 4401 compliance discussion.

Section 4.1 exempts any steam-enhanced crude oil production well from this rule when undergoing service or repair during the time the well is not producing. The following condition will ensure compliance with this exemption:

- During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1]
Section 4.7 states that the requirements of Section 5.4.1 through Section 5.4.7 of this rule shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight or less (≤10 wt.%), as determined by the test methods in Section 6.3.4.:  

- The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7]  

Section 5.1 prohibits an operator from operating a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule, or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system that has a VOC collection and control system as defined in Section 3.0 of this Rule.  

- An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1]  

Section 5.2 states that an operator shall be in violation of this rule if any District inspection or operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the following conditions exist at the facility:  

- 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; or,  
- Existence of a component with a major liquid leak as defined in Section 3.0; or,  
- Existence of a component with a gas leak greater than 50,000 ppmv; or,  
- Existence of a component leak described in Section 5.2.2.4.1 through Section 5.2.2.4.3 in excess of the allowable number of leaks specified in Table 2.
The following conditions will ensure compliance with this section:

- An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2]

- An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2]

**Section 5.3 requires operators to comply with the following 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 5.2.2. 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 5.5 of this rule; or,
- 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; or,
- 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.

The following conditions will ensure compliance with this section:

- An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3]

- Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3]
• An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3]

**Section 5.4** an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3 with the following exceptions and additions:

• 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; or,

• An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule; or,

• In addition to the inspections required by Section 5.4.1, 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; or,
  • Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule.

• In addition to the inspections required by Section 5.4.1, Section 5.4.2 and Section 5.4.3, 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; or,
  • An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service; or,
  • Except for PRDs subject to the requirements of Section 5.4.4.1, 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.
  • An operator shall inspect all unsafe-to-monitor components during each turnaround; or,
• 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.

The following conditions will ensure compliance with this section:

• Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1]

• An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2]

• In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-Visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3]

• In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4]

• An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7]

• District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.8]
Section 5.5 outlines leak repair requirements as follows:

- 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.
- 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.
- 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.
- Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7, 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 following requirements as soon as practicable, but not later than the time period specified in Table 3:
  - 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
- The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3.
- The time of the initial leak detection shall be the start of the repair period specified in Table 3.
- 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.
The following conditions will ensure compliance with this section:

- An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5]

- An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5]

- An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5]

- Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5]

- The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5]

- The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5]

- The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5]

- If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5]
Section 6.1 requires operators to maintain records required by Section 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 following records shall be maintained:

- 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.
- 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.
- The inspection log maintained pursuant to Section 6.4.
- 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.
- An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.
- An operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.
- An operator shall keep a list of all gauge tanks, as defined in Section 3.0. 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 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing.
- 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 of the release to the APCO no later than 60 days after the end of the calendar year.

The following conditions will ensure compliance with this section:

- 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]
• An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1]

• Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1]

• Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1]

• An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1 and 6.5]

• Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.6]

• Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1]

• The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1]

• An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1]

• All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1]
Section 6.2 requires source testing to meet the following requirements:

- An operator shall source test annually all VOC collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system is not subject to compliance source testing requirements.

- If approved by the APCO, a VOC collection and control system is not subject to Section 6.2.1 if all uncondensed VOC emissions collected by the system are controlled by a device meeting one of the following requirements:
  - An internal combustion engine subject to District Rule 4702 (Internal Combustion Engines – Phase 2); or
  - A combustion device subject to District Rule 4320 (Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr); District Rule 4307 (Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr); or District Rule 4308 (Boilers, Steam Generators, and Process Heaters – 0.075 MMBtu/hr to 2.0 MMBtu/hr); or
  - A unit subject to District Rule 4311 (Flares).

- An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0:
  - 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 6.1.9.

The following conditions will ensure compliance with this section:

- An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2]
• If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2]

• An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2]

Section 6.3 lists test methods that may be used to show compliance. The following conditions will ensure compliance with this section:

• 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]

• 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]

• 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]

• 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]
Section 6.4 requires operators to maintain an inspection log that 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.

The following conditions will ensure compliance with this section:

- Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4]
Section 6.5 requires operators to establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. The following condition will ensure compliance with this section:

- An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1 and 6.5]

Section 6.6 requires an operator to 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. The following condition will ensure compliance with this section:

- Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.6]

Section 6.7 requires that by January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

The following conditions will ensure compliance with this section:

- By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-716</td>
<td>15-56</td>
</tr>
<tr>
<td>S-1131-903 and '-909</td>
<td>9-50</td>
</tr>
<tr>
<td>S-1131-917, '-932, '-944, '-958, '-1014, '-1035, and '-1048</td>
<td>5-46</td>
</tr>
<tr>
<td>S-1131-995</td>
<td>7-48</td>
</tr>
<tr>
<td>S-1131-996</td>
<td>8-49</td>
</tr>
<tr>
<td>S-1131-1007, '-1010, '-1011, '-1012, '-1013, and '-1033</td>
<td>6-47</td>
</tr>
<tr>
<td>S-1131-1017</td>
<td>14-55</td>
</tr>
<tr>
<td>S-1131-1031 and '-1032</td>
<td>11-52</td>
</tr>
<tr>
<td>S-1131-1036</td>
<td>4-45</td>
</tr>
<tr>
<td>S-1131-1106</td>
<td>10-51</td>
</tr>
</tbody>
</table>

K. District Rule 4601 - Architectural Coatings

This rule limits the emissions of VOCs 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). The rule was amended in December 17,
2009. Since the following changes included in the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit S-2010-0-2, no further evaluation is needed.

**Section 5.1** requires that, except as provided for in Section 5.2 and 5.3, no person shall: manufacture, blend, or repackage for use within the District; or supply, sell, or offer for sale within the District; or solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards 1 or the Table of Standards 2, after the specified effective date in the Table of Standards 1 or the Table of Standards 2. Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

**Section 5.2** allows coatings that meet the definition in Section 3.0 for one or more specialty coating categories listed in the Table of Standards 1 or the Table of Standards 2 to meet the VOC limit for the applicable specialty coating listed in the Table of Standards 1 or the Table of Standards 2.

The following condition will ensure compliance with this section of the rule:

- No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1, 5.2, 5.5, and 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>24</td>
</tr>
</tbody>
</table>

**Section 5.3** allows a coating manufactured prior to the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2, and that complied with the standards in effect at the time the coating was manufactured, to be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2 may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.

The facility had not requested this allowance in the previous Title V permit nor in the application for this permit.

**Section 5.4** requires that all architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use.
These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.

- All VOC-containing materials for architectural coatings subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 5.5 requires that no person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards 1 or the Table of Standards 2.

The following condition will ensure compliance with this section of the rule:

- No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1, 5.2, 5.5, and 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>24</td>
</tr>
</tbody>
</table>

Section 5.6 is effective only through December 31, 2010.

Section 5.7 requires that coatings not listed in the Table of Standards 1 or the Table of Standards 2 that do not meet any of the definitions for the specialty coatings categories listed in the Table of Standards 1 or the Table of Standards 2, the VOC content limit shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat – High Gloss coating, based on its gloss, and the corresponding Flat, Nonflat, or Nonflat – High Gloss VOC limit in the Table of Standards 1 or the Table of Standards 2 shall apply.

The following condition will ensure compliance with this section of the rule:

- No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1, 5.2, 5.5, and 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>24</td>
</tr>
</tbody>
</table>

Section 5.8 is effective only through December 31, 2010.
Section 6.1 requires each manufacturer of any architectural coating subject to this rule to display the information listed in Sections 6.1.1 through 6.1.14 on the coating container (or label) in which the coating is sold or distributed.

The following condition will ensure compliance with this section of the rule:

- 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 4501, 6.1 and 6.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>26</td>
</tr>
</tbody>
</table>

Section 6.2 lists sales data requirements. This source does not engage in architectural coating sales; therefore, this section is not applicable.

Section 6.3 lists test methods. The following condition will ensure compliance with this section of the rule:

- 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 4501, 6.1 and 6.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>26</td>
</tr>
</tbody>
</table>

L. District Rule 4621 - Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants

This rule applies to storage containers located at bulk plants with capacities greater than 250 gallons and less than 19,800 gallons; to other stationary storage containers with capacities greater than 250 gallons; and to those storage containers that are not subject to the control requirements of Rule 4623 (Storage of Organic Liquids) Section 5.0. The rule also applies to gasoline delivery vessels.

Section 5.1 states “loading equipment and vapor collection equipment shall be installed, maintained, and operated such that it is leak-free, with no excess organic liquid drainage at disconnect.”

Section 3.19 defines a leak as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or the detection of any gaseous or vapor emissions with a concentration or total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.4.3. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component or equipment into a container is not considered sampling of a leak provided such
activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Therefore, the following permit conditions will be placed on the permit to ensure compliance with these requirements:

- Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 4621, 3.19, 5.1, 5.6; and 4622, 3.17, 5.1, 5.6, 6.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>31</td>
</tr>
</tbody>
</table>

Section 5.2.1 states "no person shall transfer, or permit the transfer, of gasoline from any delivery vessel into any stationary storage container subject to the requirements of this rule unless such container is equipped with an ARB certified permanent submerged fill pipe and utilizes an ARB certified Phase I vapor recovery system that is maintained and operated according to manufacturer specifications and the applicable ARB Executive Order." Since the facility has installed ARB certified Phase I vapor recovery system, requirements of this section are satisfied and compliance is expected.

In addition, ARB has the additional certification requirements, including applicable rules and regulations of the Division of Measurement Standards, the Department of Food and Agriculture, the Office of the State Fire Marshal, the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health, the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification.

Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- The vapor recovery systems and their components shall be installed, operated, and maintained in accordance with the State certification requirements. [District Rules 4621, 5.2; and 4622, 5.1]
The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. [District Rules 4621, 5.2; and 4622, 5.1]

Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.2]

Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with an ARB certified Phase I system and maintained and operated according to manufacturers specifications. [District Rule 4621, 5.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>2, 3, 8, and 9</td>
</tr>
</tbody>
</table>

Section 5.2.4 states “operators shall have all underground storage container installations and all underground piping configurations inspected by the APCO prior to backfilling. The operator shall notify the District by telephone or other District-approved method and obtain a confirmation number at least three business days prior to the backfilling.”

As this equipment is already installed, notification prior to backfilling is not required.

Section 5.3.3 states “for an underground storage container not located at a bulk plant and a container that does not contain aviation gasoline, the container shall be equipped with an ARB certified Phase I vapor recovery system that has a minimum volumetric control efficiency of 98 percent.” The facility has proposed the installation of a Phase I vapor recovery system that meets the requirements of this section. Therefore, no further discussion is required.

Section 5.3.5 states “operators of underground storage containers not located at bulk plants shall conduct and pass the applicable performance tests specified in Sections 6.4.5 through 6.4.8 to determine compliance at least once every 36 months, (no more than 30 days before or after the required performance test date) unless otherwise required under ARB Executive Order or Rule 4622 (Gasoline Transfer into Motor Vehicle Fuel Tanks).”
Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621, 5.3; and 4622, 6.4]

- The permittee shall perform and pass a Static Leak Test for Underground Tanks using ARB TP-201.3 in accordance with the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rules 4621, 5.3; and 4622, 6.4]

- The permittee shall perform and pass a Pressure Integrity of Drop Tube Drain Valve Assembly Test using ARB TP-201.1C or a Pressure Integrity of Drop Tube Overfill Protection Devices Test using ARB TP-201.1D if an overfill protection device is installed, at least once every 36 months. [District Rule 4621, 5.3]

- The permittee shall perform and pass a Static Torque of Rotatable Phase I Adaptors test using ARB procedure TP-201.1B at least once every 36 months. [District Rule 4621, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>20, 23, 27, and 28</td>
</tr>
</tbody>
</table>

Section 5.5 states "all Phase I vapor recovery systems shall be inspected according to the frequency specified in Table 1. The person conducting the inspections shall, at a minimum, verify that the fill caps and vapor caps are not missing, damaged, or loose, that the fill cap gasket and vapor cap gaskets are not missing or damaged, that the fill adapter and vapor adapter are securely attached to the risers, that, where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing, and the dry break (poppet-valve) is not missing or damaged and that the submerged fill tube is not missing or damaged.” Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621, 5.5; and 4622, 5.3]

- Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621, 5.5]
<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>35 and 36</td>
</tr>
</tbody>
</table>

Section 5.7.2 states "no person shall operate, or allow the operation of a delivery vessel unless valid State of California decals which attest to the vapor integrity of the container are displayed." Therefore, the following condition will be listed on the permit to ensure compliance with this requirement:

- No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.7]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>12</td>
</tr>
</tbody>
</table>

Section 6.1.4 states "all records required to demonstrate compliance with the requirements of this rule shall be retained on the premises for a minimum of five years and made available on site during normal business hours to the APCO, ARB, or EPA, and submitted to the APCO, ARB, or EPA upon request."

Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rules 4621, 6.1; and 4622, 6.2]
- Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rules 4621, 6.1; and 4622, 6.1, 6.2]
- The operator shall maintain monthly and annual gasoline throughput records. [District Rules 4621, 6.1; and 4622, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>30, 33, and 40</td>
</tr>
</tbody>
</table>

Section 6.2.3 states "Operators shall notify the District at least seven days prior to any performance testing."

Section 6.2.4 states "Operators shall submit all performance test results to the District within 30 days of test completion."
Therefore, the following condition will be listed on the permit to ensure compliance with this requirement:

- The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>21</td>
</tr>
</tbody>
</table>

Section 6.3.1 states “on and after June 20, 2008, installation and maintenance contractors shall be certified by the ICC for Vapor Recovery System Installation and Repair (VI) and make available onsite proof of ICC certification for VI, and have and make available on site proof of any and all certifications required by the Executive Order and installation and operation manual in order to install or maintain specific systems, or work under the direct and personal supervision of an individual physically present at the work site who possesses and makes available onsite a current certificate from the ICC, indicating he or she has passed the VI exam and all certifications required by the applicable Executive Order.”

Section 6.3.2 states “All ICC certifications shall be renewed every 24 months by passing the appropriate exam specific to the certification being sought.”

Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3; and 4622; 5.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>17 and 18</td>
</tr>
</tbody>
</table>

Section 6.3.3 states “Effective on and after March 21, 2008, Gasoline Dispensing Facility Testers wishing to conduct vapor recovery system testing and repair at facilities located within the District, shall be in full compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification).”
Therefore, the following permit condition will be placed on the ATC to ensure compliance with these requirements:

- A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>19</td>
</tr>
</tbody>
</table>

**M. District Rule 4622 - Gasoline Transfer into Motor Vehicle Fuel Tanks**

This rule applies to any gasoline storage and dispensing operation or mobile fueler from which gasoline is transferred into motor vehicle fuel tanks, except as provided in Section 4.0.

**Section 3.17** defines leak as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or the detection of any gaseous or vapor emissions with a concentration or total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.5.4. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component or equipment into a container is not considered sampling of a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. Therefore, the following condition will be listed on the permit to ensure compliance with this requirement:

- Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 4621, 3.19, 5.1, 5.6; and 4622, 3.17, 5.1, 5.6, 6.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>31</td>
</tr>
</tbody>
</table>
Section 3.25 defines a retail gasoline outlet as an establishment at which gasoline is sold or offered for sale to the general public for use in motor vehicles. Therefore, the following condition will be listed on the permit to ensure compliance with this requirement:

- This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rules 4622, 3.25; and 2520, 9.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>11</td>
</tr>
</tbody>
</table>

Section 5.1 states “a person shall not transfer or permit the transfer of gasoline from any stationary storage container, or from any mobile fueler with a capacity greater than 120 gallons, into a motor vehicle fuel tank with a capacity greater than 5 gallons, unless the gasoline dispensing unit used to transfer the gasoline is equipped with and has in operation an ARB certified Phase II vapor recovery system.”

Section 5.1.1 states “all ARB certified Phase II vapor recovery systems shall be maintained according to ARB certifications and the manufacturer specifications applicable to the system.” Since the facility is proposing to install ARB certified Phase II vapor recovery system, requirements of this section are satisfied and compliance is expected.

In addition, ARB has the additional certification requirements, including applicable rules and regulations of the Division of Measurement Standards, the Department of Food and Agriculture, the Office of the State Fire Marshal, the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health, the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. Therefore, the following conditions will be listed on the permit to ensure compliance with this requirement:

- The vapor recovery systems and their components shall be installed, operated, and maintained in accordance with the State certification requirements. [District Rules 4621, 5.2; and 4622, 5.1]

- The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. [District Rules 4621, 5.2; and 4622, 5.1]
• All nozzles shall be equipped with coaxial hose configurations. [District Rule 4622, 5.1]

• Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere. [District Rule 4622, 5.1]

• The permittee shall perform and pass a Dispenser vapor Line Tightness test for each dispenser using the test procedure defined in the Installation, Operation and Maintenance manual of the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622, 5.1]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>2, 3, 7, 10, and 26</td>
</tr>
</tbody>
</table>

Section 5.1.2 states "all ARB certified Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as determined in accordance with the test method in Section 6.5.4."

The following condition will be listed on the permit to ensure compliance with this requirement:

• Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 4621, 3.19, 5.1, 5.6; and 4622, 3.17, 5.1, 5.6, 6.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>31</td>
</tr>
</tbody>
</table>

Section 5.2.1 states "any gasoline dispensing system subject to this rule shall comply with the provisions of this rule at the time of installation."

Section 5.2.2 states "operators shall have all underground storage container installations and all underground piping configurations inspected by the APCO prior to backfilling. The operator shall notify the District by telephone or other District-approved method and obtain a confirmation number at least three business days prior to the backfilling."

As this equipment is already installed, notification prior to backfilling is not required.
Section 5.2.3 states "installation and maintenance contractors shall, be certified by the ICC (International Code Council) for Vapor Recovery System Installation and Repair by June 20, 2008, renew the ICC certification for Vapor Recovery System Installation and Repair every 24 months, make available onsite proof of ICC certification, and have and make available on site proof of any and all certifications required by the Executive Order and installation and operation manual in order to install or maintain specific systems."

Section 5.2.4 states "in lieu of complying with Sections 5.2.3.1 through 5.2.3.4, installation and maintenance contractors may work under the direct and personal supervision of an individual physically present at the work site who possesses and makes available on site current certifications from the ICC, indicating he or she has passed the ICC Vapor Recovery System Installation and Repair exam and all other certifications required by the applicable Executive Order." The following conditions will be listed on the permit to ensure compliance with this requirement:

- The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule 4622, 5.2]

- A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3; and 4622, 5.2]

- Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621, 6.3; and 4622, 5.2]

- The gasoline throughput for this permit unit shall not exceed 600,000 gallons in any one calendar year. [District Rule 4622, 5.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>5, 17, 18, and 39</td>
</tr>
</tbody>
</table>

Section 5.3.1 states "the owner or operator of an ARB certified Phase II vapor recovery system shall conduct periodic maintenance inspections to ensure that components of the vapor recovery system are in proper operating condition."

Section 5.3.2 states "the frequency of inspections shall be based on the operation's largest monthly gasoline throughput from the previous calendar year as indicated in Table 1."
Section 5.3.4 states "the frequency of vapor path inspections shall be based on the amount of gasoline dispensed by the operation in a calendar month as indicated in Table 1."

Section 5.3.5 states "the person conducting the inspections shall at a minimum, verify that the fueling instructions required by Section 5.5 are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs, that the following nozzle components are in place and in good condition as specified in ARB Executive Orders: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, hold open latch, that the hoses are not torn, flattened or cramped, that the vapor path of coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid and that the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit."

The following conditions will be listed on the permit to ensure compliance with these requirements:

- The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621, 5.5; and 4622, 5.3]

- Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the fueling instructions required by this permit are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs; 2) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 3) the hoses are not torn, flattened or cramped; 4) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 5) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>35 and 37</td>
</tr>
</tbody>
</table>
Section 5.4.1 states "no person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order, until: The defect has been repaired, replaced, or adjusted as necessary to correct the defect; The District has been notified, and the District has reinspected the system or authorized the system for use. Such authorization shall not include the authority to operate the equipment prior to the correction of the defective components; and all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual." The following condition will be listed on the permit to ensure compliance with this requirement:

- No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622, 5.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>15</td>
</tr>
</tbody>
</table>

Section 5.4.2 states "upon identification of any major defects, the owner or operator shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired."

Section 5.4.2.1 states "tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defective equipment has been repaired, replaced, or adjusted, as necessary."

Section 5.4.2.2 states "in the case of defects identified by the District, tagged equipment shall be rendered inoperable, and the tag shall not be removed until the District has been notified of the repairs, and the District has either reinspected the system or authorized the tagged equipment for use." The following condition will be listed on the permit to ensure compliance with this requirement:

- Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has been notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use. A log containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 4622, 5.4]
Section 5.4.4 states "in the event of a separation due to a drive off, the owner or operator shall complete one of the following, unless otherwise specified in the applicable ARB Executive Order, and document the activities in accordance with Section 6.2, before placing the affected equipment back in service:

1) Conduct a visual inspection of the affected equipment, perform qualified repairs on any damaged components, and conduct applicable re-verification tests pursuant to Sections 6.5.1.1 and 6.5.1.4, or

2) Conduct a visual inspection of the affected equipment and replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified, before placing affected equipment back in service."

The following condition will be listed on the permit to ensure compliance with this requirement:

- In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622, 5.4]

Section 6.2.1 states "operators shall retain the test result verification that each ARB certified Phase II vapor recovery system meets or exceeds the requirements of the tests specified in Section 6.5. These verifications shall be maintained for at least five years. These test results shall be dated and shall contain the names, addresses, and telephone numbers of the companies responsible for system installation and testing."

Therefore, the following permit condition will be placed on the ATC to ensure compliance with this requirement:

- The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rules 4621, 6.1; and 4622, 6.2]
Section 6.2.2 states “a person who performs repairs on any ARB certified Phase I or Phase II vapor recovery system shall provide to the owner or operator a repair log, which the owner or operator shall maintain on the premises for at least five years and which shall include all of the following:
1) Date and time of each repair;
2) The name and applicable certification numbers of the person(s) who performed the repair, and, if applicable, the name, address and phone number of the person’s employer;
3) Description of service performed;
4) Each component that was repaired, serviced, or removed;
5) Each component that was installed as replacement, if applicable;
6) Receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs.”

The following condition will be listed on the permit to ensure compliance with this requirement:

• The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person’s employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>41</td>
</tr>
</tbody>
</table>

Section 6.2.3 states “each operator who is required to perform periodic maintenance inspections under Section 5.3 shall maintain monthly gasoline throughput records on the premises for a minimum of five years, make them available on site during normal business hours to the APCO, ARB, or EPA, and submit them to the APCO, ARB, or EPA upon request.” The following conditions will be listed on the permit to ensure compliance with this requirement:

• The operator shall maintain monthly and annual gasoline throughput records. [District Rules 4621, 6.1; and 4622, 6.2]

• Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rules 4621, 6.1; and 4622, 6.1, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>40 and 33</td>
</tr>
</tbody>
</table>
Section 6.3.1 states "the owner or operator of a gasoline dispensing operation shall maintain an O&M Manual in accordance with Section 6.3."

Section 6.3.2 states "the O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request."

Section 6.3.3 states "the O&M manual shall, at a minimum, include the following current information:
1) copies of all vapor recovery performance tests,
2) all applicable ARB Executive Orders, Approval Letters, and District Permits,
3) manufacturer’s specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer,
4) system and/or component testing requirements, including test schedules and passing criteria for each of the standard tests listed in Section 6.0. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements, and
5) additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components."

Section 6.3.4 states "owners or operators of gasoline dispensing operations shall document the periodic maintenance inspection program in the O&M manual." The following conditions will be listed on the permit to ensure compliance with this requirement:

- The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622, 6.3]

- The operator shall implement a periodic maintenance inspection program for the certified Phase 1I vapor recovery system consistent with Section 5.4 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622, 6.3]
<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>34 and 42</td>
</tr>
</tbody>
</table>

**Section 6.4.1** states "operators shall comply with the ARB certified Phase II vapor recovery system performance tests specified in Sections 6.4.1.1 through 6.4.1.4 and shall conduct all applicable performance tests at start up and thereafter (no more than 30 days before or after the required compliance testing date) as required by ARB Executive Order and installation and operation manuals."

**Section 6.4.1.1** states "conduct and pass a Static Leak Test of the ARB certified Phase II vapor recovery system at least once every twelve months."

**Section 6.4.1.2** states "conduct and pass a Dynamic Back-Pressure Test of the ARB certified Phase II vapor recovery system at least once every twelve months except for those aboveground storage tanks that have integral dispensers (non-remote), unless otherwise required under ARB Executive Order."

**Section 6.4.1.3** states "for ARB certified Phase II vapor recovery systems with bellows-less nozzles, conduct and pass, as applicable, an Air-to-Liquid Volume Ratio Test or a Vapor-to-Liquid Ratio Test at least once every six months."

**Section 6.4.1.4** states "for ARB certified Phase II vapor recovery systems with a liquid removal device required by ARB Executive Orders, conduct and pass a Liquid Removal Test whenever the liquid in the vapor path exceeds 100 ml of liquid. The amount of liquid in the vapor path shall be determined in accordance with the procedure specified in Section 5.3.5.4."

**Section 6.4.2** states "the person responsible for conducting the tests specified in Section 6.4 shall use calibrated equipment meeting the calibration range and calibration intervals specified by the manufacturer, ARB Executive Order, or ARB test procedure."

**Section 6.4.4** states "effective on and after March 21, 2008, persons responsible for conducting the tests specified in Section 6.5 shall be in full compliance with all provisions of Rule 1177 (Gasoline Dispensing Facility Tester Certification)."

The following condition will be listed on the permit to ensure compliance with this requirement:

- A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4]
Section 6.4.5 states "each gasoline dispensing operation shall notify the District at least seven days prior to any performance testing."

Section 6.4.6 states "each ARB certified Phase II vapor recovery system shall be tested within 60 days of completion of installation or modification."

Section 6.5.1 states "tests shall be conducted in accordance with the latest version of the following ARB and EPA approved test methods, or their equivalents as approved by the EPA, and the APCO."

Section 6.5.1.1 states "Static Leak Test for Underground Tanks, ARB TP-201.3"

Section 6.5.1.2 states "Dynamic Back-Pressure Test, ARB TP-201.4"

Section 6.5.1.3 states "Air-to-Liquid Volume Ratio Test, ARB TP-201.5"

Section 6.5.1.4 states "Liquid Removal Test, ARB TP-201.6C"

Section 6.5.1.5 states "Static Leak Test for Aboveground Tanks, ARB TP-206.3 or TP-201.3B as applicable."

The following conditions will be listed on the permit to ensure compliance with these requirements:

- The permittee shall perform and pass a Dynamic Back Pressure Test using ARB TP-201.4 at least once every 12 months. [District Rule 4622, 6.4, 6.5]
- The permittee shall perform and pass a Static Leak Test for Underground Tanks using ARB TP-201.3 in accordance with the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rules 4621, 5.3; and 4622, 6.4, 6.5]
- The permittee shall perform and pass a Vapor-to-Liquid Volume Ratio Test using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every six (6) months. [District Rule 4622, 6.4, 6.5]
- The permittee shall perform and pass a Static Pressure Test for the Healy Clean Air Separator using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622, 6.4, 6.5]
The permittee shall perform and pass a Dispenser vapor Line Tightness test for each dispenser using the test procedure defined in the Installation, Operation and Maintenance manual of the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622, 6.4, 6.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>22-26</td>
</tr>
</tbody>
</table>

Section 6.5.4 states “detection of leaks shall be in accordance with EPA Test Method 21.”

The following condition will be listed on the permit to ensure compliance with this requirement:

- Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 4621, 3.19, 5.1, 5.6, and 4622, 3.17, 5.1, 5.6, 6.5]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-724</td>
<td>31</td>
</tr>
</tbody>
</table>

N. District Rule 4623 - Storage of Organic Liquids

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

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

- 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.

The following conditions will ensure compliance with this exemption:

- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4]
- 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, 6.2]

- The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2]

- Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3]

- The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3]

- 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]


- For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-861 and '862</td>
<td>6-12</td>
</tr>
</tbody>
</table>

Tanks listed below are both connected to vapor control and are limited to a TVP of less than 0.5 psia.
Therefore the previously listed conditions will ensure compliance with this exemption:

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-598</td>
<td>6 and 22-27</td>
</tr>
<tr>
<td>S-1131-885</td>
<td>32-38</td>
</tr>
<tr>
<td>S-1131-886, '891, and '892</td>
<td>24-31 and 34</td>
</tr>
</tbody>
</table>

Section 5.1 requires that no organic liquid shall be placed, held, or stored in any tank unless the tank is equipped with a VOC control system identified in Table 1. This section also requires that tanks operate in a leak-free condition except as allowed in Section 5.2.

Chevron is not a small producer and all tanks that are not exempt pursuant to Section 4.4 comply with this rule by being equipped with vapor control systems.

Section 5.2 lists requirements for pressure relief valves. No tanks, except those that are exempt, are operated with a PV valve; therefore this section is not applicable.

Section 5.3 lists requirements for external floating roof tanks. No tanks are classified as an external floating roof tank; therefore this section is not applicable.

Section 5.4 lists requirements for internal floating roof tanks. No tanks are classified as an internal floating roof tank; therefore this section is not applicable.

Section 5.5 lists requirements for floating roof deck fittings. No tanks are equipped with floating roof decks; therefore this section is not applicable.

Section 5.6 lists requirements for vapor recovery systems. Fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. An APCO-approved vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition.

The VOC control device shall be one of the following:

- A condensation or vapor return system that connects to one of the following: a gas processing plant, a field gas pipeline, a pipeline distributing Public Utility Commission quality gas for sale, an injection well for disposal of vapors as approved by the California Department of Conservation, Division of Oil Gas, and Geothermal Resources, or
• A VOC control device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.6.

Additionally any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.

The following conditions will ensure compliance with this section of the rule:

• When the vent line is open free water knockout vessel, water stand vessel (V-190), and sand jet (V-200) vessel shall only vent to Mecca-Rambler casing vapor recovery system permit unit #S-1131-1008. [District Rules 2201; and 4623, 5.6]

• When the vent line for this permit unit is closed, produced fluids shall only be introduced to vapor controlled tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097. [District Rules 2201; and 4623, 5.6]

• The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 95%. [District Rules 2201; and 4623, 5.6]

• Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. Leak-free shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623, 5.6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1049 and '1-1050</td>
<td>1, 2, and 3</td>
</tr>
</tbody>
</table>

Section 5.7 lists voluntary tank preventive inspection and maintenance, and tank interior cleaning requirements. Chevron has not requested any additional I&M or tank cleaning allowances; therefore this section is not applicable.

Section 6.2 lists TVP and API gravity testing for uncontrolled fixed roof tanks. As mentioned previously, Chevron does not operate any tanks that are not exempt from the rule and do not have vapor control; therefore this section of the rule is not applicable.

Section 6.3 requires that all records be retained for a period of five years. The following condition will be listed on the permits to ensure compliance:

• All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3]
O. District Rule 4701 - Internal Combustion Engines – Phase 1

Pursuant to Section 7.5.2.3 of District Rule 4702, as of June 1, 2006 District Rule 4701 is no longer applicable to engines subject to Rule 4701 §4.1, 4.2, 4.3, or 5.1. All engines permitted at this stationary source could be subject to one of these sections; therefore, these internal combustion engines will comply with the requirements of District Rule 4702 and no further discussion is required.

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

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.

The rule was amended January 18, 2007 to address the following:

- The definition of Certified Compression-Ignited Engine was modified to include a Code of Federal Regulation citation.
- An exemption was added for engines used in retracting arresting gear cables used to stop military naval aircraft after landing.
- A compliance deadline for engines used exclusively in agricultural operation was extended for one year.
- Engines operated with an APCO certified exhaust control system were exempted from submitting an emission control plan.
- Certified compression ignition engines were exempted from compliance testing.
- A portable NOx analyzer was allowed for Agriculture Operation (AO) spark-ignited engines to initially show compliance with the emission standards until a source test can be arranged.
- Representative testing for spark-ignited engines were allowed.
- A District certification program was established to verify the control efficiency of exhaust control systems.

Pursuant to Section 4.2, except for the requirements of Sections 5.7 and 6.2.3, the requirements of this rule shall not apply to an internal combustion engine that meets the following condition:

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.

Section 3.15 defines an "Emergency Standby Engine" as an internal combustion engine which operates as a temporary replacement for primary mechanical or electrical power during an unscheduled outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the operator. An engine shall be considered to be an emergency standby engine if it is used only for the following purposes: (1) periodic maintenance, periodic readiness testing, or readiness testing during and after repair work; (2) unscheduled outages, or to supply power while maintenance is performed or repairs are made to the primary power supply; and (3) if it is limited to operate 100 hours or less per calendar year for non-emergency purposes. An engine shall not be considered to be an emergency standby engine if it is used: (1) to reduce the demand for electrical power when normal electrical power line service has not failed, or (2) to produce power for the utility electrical distribution system, or (3) in conjunction with a voluntary utility demand reduction program or interruptible power contract.

Therefore, engines listed on permits S-1131-1084 and S-1117 qualify as emergency standby engines and will only have to meet the requirements of Sections 5.7 and 6.2.3 of this Rule. The engine listed on permit S-1131-1119 does not qualify as an emergency standby engine.

The following definition will be placed on the emergency standby engines to ensure compliance:

- An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15]

- This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 3.15]

- This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1084</td>
<td>3 and 6</td>
</tr>
<tr>
<td>S-1131-1117</td>
<td>4, 6, and 7</td>
</tr>
</tbody>
</table>
• This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year, as determined by an operational non-resettable elapsed operating time meter. [District Rule 4702, 3.15]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1084</td>
<td>5</td>
</tr>
</tbody>
</table>

Section 5.7 of this Rule requires that the owner of an emergency standby engine comply with the requirements specified in Section 5.7.2 through Section 5.7.5 below:

1) Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

2) Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

3) Install and operate a non-resettable elapsed operating time meter. In lieu of installing a non-resettable 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 and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer’s instructions.

The following conditions ensure compliance with this section:

• This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7; and 17 CCR 93115]

• During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7]

• 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]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1084</td>
<td>2, 4, and 7</td>
</tr>
<tr>
<td>S-1131-1117</td>
<td>2, 5, and 10</td>
</tr>
</tbody>
</table>
Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request. The following conditions ensure compliance with this section:

- The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2]

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1084</td>
<td>8 and 9</td>
</tr>
<tr>
<td>S-1131-1117</td>
<td>13 and 15</td>
</tr>
</tbody>
</table>

The engine listed on permit S-1131-1119 is a non-emergency use compression ignition engine limited to 300 hours per year.

Section 5.1.2 requires compression-ignited engines to comply with the applicable emission limits/standards pursuant to Section 5.1.2 or Section 8.0. Pursuant to Table 2 Emission Limits/Standards and Compliance Schedule for a Compression-Ignited Internal Combustion Engine, Section 2.B, any EPA certified TIER 3 or TIER 4 engine shall meet the certified compression-ignited engine standard in effect at the time of installation.

Since the proposed engine is a certified Tier 3 engine, and the requirement at the time of ATC issuance was Tier 3 certification, this engine complies with Section 5.1.2.

Section 5.7 of this Rule requires that the owner of an engine comply with the requirements specified in Section 5.7.2 through Section 5.7.5 below:
1) Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
2) Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
3) Install and operate a nonresettable elapsed operating time meter. In lieu of installing 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 and is allowed by Permit-to-
Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer’s instructions. The following conditions ensure compliance with this section:

- Any IC engine utilized for this permit unit 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]

- During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7]

- Any IC engine utilized for this permit unit shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7; and 17 CCR 93115]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1119</td>
<td>11, 12, and 13</td>
</tr>
</tbody>
</table>

Section 6.1 requires the owner of an engine subject to the requirements of Section 5.1 or Section 8.0, except for an engine specified in Section 6.1.1, of this rule to submit to the APCO an APCO-approvable emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0.

Since this engine already complies with the requirements of Section 5.1, no emission control plan is necessary.

Section 6.2.1: requires the owner of an engine subject to the requirements of Section 5.1 to maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

6.2.1.1 Total hours of operation,
6.2.1.2 Type of fuel used,
6.2.1.3 Maintenance or modifications performed,
6.2.1.4 Monitoring data,
6.2.1.5 Compliance source test results, and
6.2.1.6 Any other information necessary to demonstrate compliance with this rule.
6.2.1.7 For an engine subject to Section 8.0, the quantity (cubic feet of gas or gallons of liquid) of fuel used on a daily basis.
Therefore, the following condition will be listed on the permit to ensure compliance.

- The permittee shall maintain a permit unit operating log that shall include the following: a record of the cumulative annual hours of operation of the engine, the quantity of diesel fuel used, and a record of maintenance or modifications performed on any IC engine utilized for this permit unit. These records shall be updated on a monthly basis. [District Rule 4702, 6.2; and 17 CCR 93115]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1119</td>
<td>11, 12, and 13</td>
</tr>
</tbody>
</table>

Section 6.3 specifies source testing requirements.

Pursuant to Section 6.3.1.1, source testing is not required for a certified compression-ignited engine that has not been retrofitted with an exhaust control and is not subject to the requirements of Section 8.0 (Alternative Emission Control Plan). This permit applies only to an engine that is a certified compression-ignited engine with an exhaust control that has not been retrofitted and is not subject to the requirements of Section 8.0, therefore source testing is not required.

Section 6.5 specifies the requirements for the Inspection and Monitoring (I&M) Plan.

Pursuant to Section 6.5.1.1, an I&M plan is not required for any certified spark-ignited engine that has not been retro-fitted with an exhaust control and is not subject to the requirements of Section 8.0 (Alternative Emission Control Plan). This permit applies only to an engine that is a certified compression-ignited engine with an exhaust control that has not been retrofitted and is not subject to the requirements of Section 8.0, therefore source testing is not required.

Section 7.5 identifies the compliance schedule for non-AO compression-ignited engine.

Pursuant to Section 7.5.2.2, this engine shall be in full compliance with Rule 4702 by the indicated dates. Since this engine is already in compliance with Rule 4702, further action is not required.

Q. District Rule 4703 - Stationary Gas Turbines

This rule applies to all stationary gas turbine systems with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3 MMBtu/hr.

Turbines listed on permits S-1131-1038 and ' -1039 are designated non-compliant dormant, as such, they will not be operated; therefore, emission limits, monitoring
provisions, and testing requirements of this rule will be satisfied when the units are modified to operate in compliance with this rule. The conditions below will be listed on the permits to ensure that compliance with this rule is achieved prior to operation:

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

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1038 and '1039</td>
<td>1-3</td>
</tr>
</tbody>
</table>

The gas turbine listed on S-1131-1037 has a heat input rate greater than 3 MMBtu/hour. Therefore, this turbine is subject to the requirements of this rule.

**Section 5.1** requires turbines to comply with NOX limits according to which Tier is applicable. According to Section 7 this turbine must comply with Tier 2 emission limits. NOX emissions shall be managed over a 3-hour period.

**Section 5.2** requires turbines to comply with CO limits according to table 5-4. Rule 4703 does not include a specific averaging period requirement for demonstrating compliance with the CO emission limit. The District practice is to require CO emissions compliance demonstration on a 3-hour rolling average period.

**Section 5.3** states that NOX and CO emission limits shall not apply during a transitional operation period, which includes bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown (each term is defined in Section 3.0 of Rule 4703), provided an operator shall meet the following conditions:
- The duration of each startup or each shutdown shall not exceed two hours.
- For each bypass transition period, the requirements specified in Section 3.2 shall be met.
- For each primary re-ignition period, the requirements specified in Section 3.20 shall be met (this condition applies to dry low NOX combustor technology, which this turbine is not equipped with, therefore this requirement does not apply).
- Each reduced load period shall not exceed one hour.
- The emissions control system shall be in operation and emissions shall be minimized insofar as technologically feasible during these periods.
The following conditions will ensure compliance with these sections:

- Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBTU or 5 ppmvd @ 15% O2, or CO: 12 ppmvd @ 15% O2. [District Rules 2201; and 4703, 5.1, 5.2, 5.3]

- Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(j),(j)(5); 40 CFR 64; and District Rule 4703, 5.1]

- The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.335(a) and (b)(7) and District Rule 4703, 5.1]

- The duration of each startup or shutdown shall not exceed two hours. [40 CFR 60.2; and District Rule 4703, 5.3]

- 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. [District Rule 4703, 3.29]

- 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 4703, 3.26]

- Bypass transition period is defined as the duration of time that a gas turbine’s operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided that the SCR catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; and NOx emissions shall not exceed 15 ppmvd @ 15% O2 averaged over 2 hours; and the duration of a bypass transition period shall not exceed two hours except during black start period. [District Rule 4703, 3.2]

- Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703, 3.23]

- The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>12, 28, 41, 16-21</td>
</tr>
</tbody>
</table>

Section 6.1 requires the submission of an emissions control plan. Chevron has already submitted an emissions control plan; therefore this section is not applicable.
Section 6.2.1 requires the owner to operate and maintain continuous emissions monitoring equipment for NO\(_X\) and oxygen, or install and maintain APCO-approved alternate monitoring.

This unit is equipped with a Continuous Emissions Monitoring System (CEMS) that will monitor NO\(_X\), CO and O\(_2\) in the exhaust gas. Therefore, the requirements of this section have been satisfied.

Section 6.2.2 specifies monitoring requirements for turbines without exhaust-gas NO\(_X\) control devices. This gas turbine will be equipped with an SCR system that is designed to control NO\(_X\) emissions. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.2.3 requires that for units 10 MW and greater that operated an average of more than 4,000 hours per year over the last three years before August 18, 1994, the owner or operator shall monitor the exhaust gas NO\(_X\) emissions. Chevron operates CEMS on this unit that meets the requirements of this section.

The following condition will ensure ongoing compliance with these sections:

- The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NO\(_x\), CO, and O\(_2\) concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64, and District Rules 1080, 6.7, and 4703, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>22</td>
</tr>
</tbody>
</table>

Section 6.2.4 requires the facility to maintain all records for a period of five years from the date of data entry and shall make such records available to the APCO upon request.

The following condition will place on each permit:

- The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rule 4703, 6.2]
Section 6.2.5 requires the operator to submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating to the associated measure NOx output. This information may be used by the APCO to determine compliance when there is no continuous emission monitoring system for NOx available or when the continuous emissions monitoring system is not operating properly. CEMS have already been installed and correlating factors have been submitted to the District; therefore, this section is not applicable.

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

Section 6.2.7 requires the operator to maintain a stationary gas turbine system log for units exempt under Section 4.2 of this Rule. This turbine is not exempt under Section 4.2 of this Rule. Therefore, no further discussion is required.

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

The following condition will ensure compliance with these sections:

- The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start), shutdown, and bypass transition time period. [District Rule 4703, 6.2]

Section 6.2.9 requires additional recordkeeping for Tier 3 units. This turbine is not subject to Tier 3 emission limits; therefore, this section is not applicable.

Section 6.2.10 requires additional recordkeeping for public service units. This turbine is not a public service unit; therefore, this section is not applicable.

Section 6.2.11 requires an operator to keep records of the date, time, and duration of each bypass transition and primary re-ignition period. This unit is not equipped with dry low-NOx combustors, so will not have reignition periods.
Section 6.2.12 requires additional recordkeeping for Tier 3 units. This turbine is not subject to Tier 3 emission limits; therefore, this section is not applicable.

Section 6.3.1 requires that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule provide source test information annually regarding the exhaust gas NO\textsubscript{x} and CO concentrations.

The gas turbine is required to be tested annually to ensure compliance with NO\textsubscript{x} and CO concentrations. The following condition will ensure compliance with this section:

- Compliance source testing for NO\textsubscript{x}, CO, VOC, NH\textsubscript{3} and fuel gas sulfur content shall be conducted at least once every 12 months. [40 CFR 60.335(a) and District Rules 1081; and 4703, 3.6, 6.3]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 6.3.2 specifies source testing requirements for units operating less than 877 hours per year. This turbine is not limited by permit condition to operate less than 877 hours per year. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.3.3 states that units with intermittently operated auxiliary burners shall demonstrate compliance with the auxiliary burner in both “on” and “off” configurations. This turbine is not equipped with auxiliary burners; therefore, the requirements of this section are not applicable.

Section 6.4 lists the following test measures to be used unless otherwise approved by the APCO and EPA:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.

- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.

- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.

- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81.
The following condition will ensure compliance with the test method requirements of this section:

- The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 10B; Ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20; and HHV and LHV – ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [40 CFR 60.335(a) and (b)(1) and District Rules 1081; and 4703, 6.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>26</td>
</tr>
</tbody>
</table>

R. District Rule 8011 - General Requirements

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 PM10 Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. The rule was amended in August 19, 2004.

The following conditions will ensure compliance with this rule:

- Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8021 and 8011]

- 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 or Rule 8011. [District Rules 8031 and 8011]

- An owner/operator shall prevent or cleanup any carryout and trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 or Rule 8011. [District Rules 8041 and 8011]

- 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 or Rule 8011. [District Rules 8051 and 8011]

- 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 or Rule 8011. [District Rules 8061 and 8011]
Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 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 or Rule 8011. [District Rules 8071 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>30 - 35</td>
</tr>
</tbody>
</table>

S. 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. The rule was amended in August 19, 2004.

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.

The following condition will ensure compliance with this rule:

- Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8021 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>30</td>
</tr>
</tbody>
</table>

T. 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. The rule was amended in August 19, 2004.

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.

The following condition will ensure compliance with this rule:

- 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 or Rule 8011. [District Rules 8031 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>31</td>
</tr>
</tbody>
</table>

U. District Rule 8041 - Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout. The rule was amended in August 19, 2004.

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.

The following condition will ensure compliance with this rule:

- An owner/operator shall prevent or cleanup any carryout and trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 or Rule 8011. [District Rules 8041 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>32</td>
</tr>
</tbody>
</table>
V. District Rule 8051 - Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas. The rule was amended in August 19, 2004.

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.

The following condition will ensure compliance with this rule:

- 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 or Rule 8011. [District Rules 8051 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>33</td>
</tr>
</tbody>
</table>

W. 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. The rule was amended in August 19, 2004.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

The following condition will ensure compliance with this rule:

- 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 or Rule 8011. [District Rules 8061 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>34</td>
</tr>
</tbody>
</table>
X. 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.

The following condition will ensure compliance with this rule:

- Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 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 or Rule 8011. [District Rules 8071 and 8011]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>35</td>
</tr>
</tbody>
</table>

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

40 CFR Part 60 Subpart GG applies to all stationary gas turbines with a heat input greater than 10.7 gigajoules per hour (10 MMBtu/hr), that commence construction, modification, or reconstruction after 10/03/77. The stationary gas turbines listed on permits S-1131-1037, '-1038, and '-1039 have a heat input greater than 10.2 MMBtu/hr and were issued permits to construct by the Kern County APCD 6/19/86; therefore this subpart is applicable to these turbines.

§60.332 Standard for NOx:

This section lists standards for NOx. Section 60.332(b) and (e) thru (l) do not apply to any of the units at this stationary source. Turbines listed on permits S-1131-1038 and '-1039 are required to comply with the NOx calculation method listed under §60.332(a)(2) per §60.332(d) and §60.332(c). The turbine listed on permit S-1131-1037 has the option of complying with either §60.332(a)(1) or (a)(2).

NOx limits will therefore be calculated using the method outlined in §60.332(a)(2) as follows:

$$\text{STD} = 0.0150 \frac{(14.4)}{Y} + F; \text{ where}$$
STD = allowable ISO corrected NO\textsubscript{X} emission concentration in % by volume @ 15% O\textsubscript{2} on dry basis

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO\textsubscript{x} emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section (Chevron has elected to not use this optional F value).

For example, unit under permit S-1131-1037,

Heat input rate = 249 \times 10^6 \text{ Btu/hr}

Power Rating = 20 MW

\[ Y = \left( 249 \times 10^6 \frac{\text{Btu}}{\text{hr}} \right) \times \left( \frac{1 \text{kJ}}{0.9478 \text{ Btu}} \right) \times \left( \frac{1}{3.725 \times 10^6 \text{W}} \right) = 70.5 \frac{\text{kJ}}{\text{W} \cdot \text{hr}} \]

Since Y exceeds 14.4 kJ/W-hr, Y is set equal to 14.4 kJ/W-hr. Completing the calculation yields:

\[ \text{STD} = 0.0150 \frac{(14.4)}{14.4} + 0 = 0.015 \text{ % by volume @ 15\% O}_2 (150 \text{ ppmv @ 15\% O}_2) \]

Similarly, NO\textsubscript{x} emissions standards for other units will be identical. NO\textsubscript{x} standards are summarized in the following table.

<table>
<thead>
<tr>
<th>Permit #</th>
<th>Y</th>
<th>F</th>
<th>STD (ppmv @ 15% O\textsubscript{2})</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>14.4</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>S-1131-1038</td>
<td>14.4</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>S-1131-1039</td>
<td>14.4</td>
<td>0</td>
<td>150</td>
</tr>
</tbody>
</table>

Chevron is required to demonstrate compliance with 5 ppmvd @ 15\% O\textsubscript{2} for permit S-1131-1037 and 35 ppmvd @ 15\% O\textsubscript{2} for permits '1-1038 and '1-1039 (currently dormant for Rule 4703). Therefore, each unit is expected to operate in compliance with the NO\textsubscript{x} standards.

The following conditions will be listed on the permits to ensure compliance:

- NO\textsubscript{x} emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15\% O2. [40 CFR 60.332(a)]
Permit Unit(s) | Condition Number(s)  
--- | ---  
S-1131-1037 | 13  
S-1131-1038 and 1'-1039 | 14  

§60.333 Standard for SO\textsubscript{x}

Section 60.333(a) requires that emissions of sulfur dioxide shall not exceed 0.015 percent by volume dry @ 15% O\textsubscript{2} (150 ppmvd @ 15% O\textsubscript{2}).

The 150 ppmvd @ 15% O\textsubscript{2} limit specified in §60.333(a) is converted to lb-SO\textsubscript{2}/MMBtu as follows:

\[
\left(150 \times 10^{-6}\right) \times \left(\frac{8.578 \text{ ft}^3}{\text{MMBtu}}\right) \times \left(\frac{64 \text{ lb-SO}_2}{\text{lb-mol}}\right) \times \left(\frac{20.95}{20.95 - 15}\right) = 0.764 \text{ lb-SO}_2/\text{MMBtu}
\]

The current emission factor for SO\textsubscript{x} is compared with the NSPS limit in the following table for these units:

<table>
<thead>
<tr>
<th>Permit #</th>
<th>Emission Factor (lb-SO\textsubscript{x}/MMBtu)</th>
<th>NSPS Limit (lb-SO\textsubscript{2}/MMBtu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>0.005</td>
<td>0.764</td>
</tr>
<tr>
<td>S-1131-1038</td>
<td>0.006</td>
<td>0.764</td>
</tr>
<tr>
<td>S-1131-1039</td>
<td>0.006</td>
<td>0.764</td>
</tr>
</tbody>
</table>

For each unit, the permitted emission factors are significantly less than that of the maximum allowable emission standards.

Section 60.333(b) requires that no turbine subject to this subpart burn fuel that contains sulfur in excess of 0.8 percent by weight (8,000 ppmw). Since any sulfur introduced into the turbine will result in SO\textsubscript{x} emissions (there is no sulfur control on any of these permits) the lb-SO\textsubscript{x}/MMBtu limit will ensure compliance with this section (startup and shut down periods are not expected to affect sulfur emissions or fuel sulfur levels as the same fuel will be used).

The following conditions will ensure compliance with these sections:

- Except during periods of startup/shutdown, emission rates shall not exceed any of the following: PM10: 0.013 lb/MMBTU, SO\textsubscript{x} (as SO2): 0.005 lb/MMBTU, or VOC: 0.040 lb/MMBTU. [40 CFR 60.333(a) and (b) and District Rules 2201]
• Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: PM10: 0.0128 lb/MMBTU, SOx (as SO2): 0.006 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or 38 ppmvd @ 15% O2, VOC: 0.035 lb/MMBTU, or CO: 40 ppmvd @ 15% O2. [40 CFR 60.333(a) and (b) and District Rules 2201; and 4703]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1038 and '-1039</td>
<td>13</td>
</tr>
</tbody>
</table>

§60.334 Monitoring of Operations

Section 60.334(a) does not apply to units following §60.334(b). These unit have CEMs installed to monitor NOX and O2; therefore this section does not apply.

Section 60.334(b) states that the owner or operator of a stationary gas turbine constructed between October 3, 1977 and July 8, 2004 and using water or steam to control NOX emissions may, as an alternative to operating the continuous emissions monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine, can install, calibrate, certify, maintain, operate, and quality-assure a continuous monitoring system (CEMS) consisting of NOX and O2 monitors.

These turbines were constructed between October 3, 1977 and July 8, 2004 and have CEMS installed to measure NOX, CO, and O2 concentrations. The following conditions will be listed on the permits to ensure compliance with this section:

• The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOX, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7, and 4703, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-1038 and '-1039</td>
<td>36</td>
</tr>
</tbody>
</table>
Section 60.334(b)(1) requires that CEMs be maintained and calibrated according to 40 CFR 60 Appendix B. The following conditions will ensure compliance with this section:

- The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>22</td>
</tr>
<tr>
<td>S-1131-1038 and '1-1039</td>
<td>36</td>
</tr>
</tbody>
</table>

Section 60.334(b)(2) and (3) requires that CEMS be operated according to 40 CFR 60.13. The following condition will ensure compliance with this section:

- CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080]

- Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and 40 CFR 64]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>27, 28</td>
</tr>
<tr>
<td>S-1131-1038 and '1-1039</td>
<td>41, 44</td>
</tr>
</tbody>
</table>

Section 60.334(c) is an optional requirement to use CEMS. The turbines are already equipped with CEMS; therefore this requirement is not applicable.

Section 60.334(d), (e), and (f) apply to turbines constructed after July 8, 2004. These turbines were all constructed before this date; therefore this section is not applicable.

Section 60.334(g) applies to steam or water to fuel ratio parameter continuous monitors. These turbines do not continuously monitor these parameters as they are equipped with CEMS; therefore this section is not applicable.
Section 60.334(h)(3)(i) and (ii) requires the owner or operator to keep sulfur content records using valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum sulfur content of the fuel is 20 grains/100 scf or less or perform a representative fuel sampling to show the sulfur content of gaseous fuel does not exceed 20 grains/100 scf.

Section 60.334(i) allows operators to monitor sulfur on custom schedules.

The following condition will ensure compliance with these sections:

- If the turbine is not fired on PUC-regulated or FERC-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(h)(3) and (i)(3)(i)]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>29</td>
</tr>
<tr>
<td>S-1131-1038 and '1039</td>
<td>30</td>
</tr>
</tbody>
</table>

Section 60.334(i)(3)(D) requires daily monitoring of fuel sulfur content when it exceeds 0.8 percent by weight (8,000 ppmw). The following condition will ensure compliance with this section:

- Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)(3)(D)]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>46</td>
</tr>
<tr>
<td>S-1131-1038 and '1039</td>
<td>43</td>
</tr>
</tbody>
</table>

Section 60.334(j)(1)(i) and (ii) list requirements for turbines using water or steam to fuel ratio monitoring and for turbines using an F value for the equation used in §60.332. This facility uses neither; therefore these section are not applicable.

Section 60.334(j)(1)(iii)(A) defines excess NOX emissions as any unit-operating hour in which the 4-hour rolling average NOX concentration exceeds the NOX emission limit calculated in §60.332.

These units are all required to operate well under this 150 ppmvd limit; therefore the following conditions will ensure compliance:

Chevron has proposed to demonstrate compliance with NOX emissions of 5 ppmvd @ 15% O2 on 3-hour rolling average basis, which is considered to be more
stringent than the NSPS limit (given above under §60.332 Standard for NO$_X$ for each turbine) over 4-hour rolling average period. Therefore, it is not necessary to define excess NO$_X$ emissions separately.

**Section 60.334(j)(1)(iii)(B)** defines a period of monitor downtime shall be any operating hour in which sufficient data are not obtained to validate the hour for either NO$_X$ concentration or diluent (or both).

- Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NO$_X$ concentration or diluent O2 (or both). [40 CFR 60.334(j)(1)(ii)(B)]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>31</td>
</tr>
<tr>
<td>S-1131-1038 and '-1039</td>
<td>38</td>
</tr>
</tbody>
</table>

**Section 60.334(j)(2)(i)** states for samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling for the unit's storage tank, excess sulfur dioxide emissions occur each unit operating hour included in the period beginning on the date and hour of any sample for which sulfur content of the fuel fired in the gas turbine exceeds 0.8% (by weight) and ending on the date and hour that a subsequent sample is taken that demonstrate compliance with the sulfur limit.

These permits have a SO$_X$ emissions rate of 0.005 lb/MMBtu and 0.006 lb/MMBtu, which are less than 0.702 lb/MMBtu (0.8 lb-S/100 lb-fuel x 64 lb-SO$_2$/32 lb-S x 0.0439 lb-fuel/ft$^3$ x ft3/1,000 Btu x 10$^6$ Btu/MMBtu). Therefore, it is not necessary to define a less stringent limit.

**Section 60.334(j)(2)(ii)** defines excess sulfur dioxide emissions when each delivery of fuel oil has been selected. These turbines are fired exclusively on gaseous fuel. Thus, requirements of this section are not applicable.

**Section 60.334(j)(2)(iii)** defines monitor downtime for sulfur dioxide emissions occur when a required sample is not taken by its due date. Monitor downtime also begins if invalid results are obtained for a fuel sample.

Chevron is not using sulfur dioxide monitors, and the turbines are exclusively fired on natural gas fuel. Therefore, it is not necessary to define monitor down for sulfur dioxide emissions.

**Section 60.334(j)(5)** requires the owner or operator to postmark the reports required under §60.7(c) by the 30$^{th}$ day following the end of each 6-month period. The permittee is required to submit quarterly reports, as it is required by District Rule 1080. Thus, compliance is expected with this section.
• The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 1080]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>32</td>
</tr>
<tr>
<td>S-1131-1038 and '1039</td>
<td>45</td>
</tr>
</tbody>
</table>

§60.335 Test Methods and Procedure

Section 60.335(a) states that the owner or operator shall conduct the performance tests required in §60.8 using EPA Method 20, ASTM D6522-00 or EPA Method 7E and either EPA Method 3 or 3A to determine NOx and diluent concentration. Sampling traverse points are to be selected following Method 20 or Method 1.

Section 60.335(b)(1) states that for each run of the performance test, the mean nitrogen oxide emission concentration @ 15% O2 shall be corrected to ISO standard conditions using the equation listed in this section to demonstrate compliance with NSPS NOx standard. NOx correction to ISO standard is optional for units equipped with add-on emissions control devices. Therefore, ISO correction is required.

The following condition will ensure compliance with these sections:

• The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 10B; Ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20; and HHV and LHV – ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [40 CFR 60.335(a) and (b)(1) and District Rules 1081; and 4703, 6.4]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>26</td>
</tr>
<tr>
<td>S-1131-1038 and '1039</td>
<td>32</td>
</tr>
</tbody>
</table>

Section 60.335(b)(2) applies to initial performance testing as required by §60.8. These permit units are in operation; therefore, initial source testing is not required and this section is not applicable.
Section 60.335(b)(3) states that for a combined cycle turbine system with duct burner, the owner may elect to measure turbine NO\textsubscript{X} emissions after the duct burner rather than directly after turbine. The turbines under this project are not equipped with supplemental heat or duct burner. Therefore, no further discussion is required.

Section 60.335(b)(4) states that if water or steam injection is used to control NO\textsubscript{X} with no additional post-combustion NO\textsubscript{X} control and the owner or operator chooses to monitor the steam or water to fuel ratio then that monitoring system must be operated with each performance test run to determine the fuel consumption and the steam or water to fuel ratio to demonstrate on-going compliance with the NO\textsubscript{X} standard.

The turbine listed on S-1131-1037 is equipped with an SCR system, and turbines listed on S-1131—1037, ‘-1038, and ‘-1039 have operational CEMS to directly measure NO\textsubscript{X}, CO and O\textsubscript{2} concentrations. Therefore, the permittee is not required to monitor fuel consumption and water or steam injection during a performance test.

Section 60.335(b)(5) states that if the owner elects to claim an emission allowance for fuel bound nitrogen, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed following the applicable procedure described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water or steam to fuel ratio will be valid. The operator has not claimed any allowance for fuel bound nitrogen; therefore this section is not applicable.

Section 60.335(b)(6) states that if the owner or operator elects to install a CEMS, the performance evaluation of CEMS may either be conducted separately or as part of the initial performance test of the affected unit as described in paragraph (b)(7). These permit units are in operation; therefore, initial source testing is not required and this section is not applicable.

Section 60.335(b)(7), (b)(8), and (b)(9) are not applicable to the turbines in this project.

Section 60.335(b)(10) if the owner or operator is required to determine the sulfur content of the fuel combusted in the turbine then a minimum of three fuel samples shall be collected during the performance test.

Section 60.335(b)(11) allows the fuel analysis to be performed by the owner or operator, service contractor, fuel vendor, or any other qualified agency.
The following conditions will be placed on the permit:

- If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, then a fuel sample shall be collected during the source test to determine the sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District [40 CFR 60.335(b)(10)]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>30</td>
</tr>
<tr>
<td>S-1131-1038 and '1039</td>
<td>31</td>
</tr>
</tbody>
</table>

Section 60.335(c) allows the operator to develop an ambient condition correction factor instead of using the equation in paragraph (b)(1) of this section. The operator has not requested any correction factor be developed; therefore this section is not applicable.

Z. 40 CFR Part 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The purpose of 40 CFR 60 Subpart III is to establish New Source Performance Standards (NSPS) to reduce emissions of NOX, SOX, PM, CO, and VOC from new stationary compression ignition (CI) internal combustion (IC) engines.

Pursuant to Section 60.4200, these standards apply to stationary CI engines that were manufactured after April 1, 2006 and stationary CI engines that were modified (as defined in 40 CFR 60.2) or reconstructed after July 11, 2005.

The engines listed on permits S-1131-833 and '1084 were manufactured prior to April 1, 2006. These engines have not been modified or reconstructed since July 11, 2005. Therefore, 40 CFR 60 Subpart III does not apply to these engines.

Engines listed on permits S-1131-1117 and '1119 were manufactured after April 1, 2006 and are subject to this subpart.

Section 60.4202 of this subpart requires that Engine(s) meet the appropriate Subpart III emission standards for new engines, based on the model year, size, and number of liters per cylinder.

These engines are all certified to the latest EPA Tier Certification level for the applicable horsepower range, guaranteeing compliance with the emission standards of Subpart III.
The following conditions will ensure compliance with this section:

- Emissions from this IC engine shall not exceed any of the following limits: X.XX g-NOx/bhp-hr, X.XX g-CO/bhp-hr, or X.XX g-VOC/bhp-hr. [District Rule 2201; 13 CCR 2423; 17 CCR 93115; and 40 CFR 60 Subpart III]

- Emissions from this IC engine shall not exceed X.XX g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201; 4102; 13 CCR 2423; 17 CCR 93115; and 40 CFR 60 Subpart III]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1117</td>
<td>11 and 12</td>
</tr>
<tr>
<td>S-1131-1119</td>
<td>6 and 7</td>
</tr>
</tbody>
</table>

Section 60.4207 of this subpart requires that Engine(s) be fired on 500 ppm sulfur content fuel or less, and fuel with a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume. Starting in October 1, 2010, the maximum allowable sulfur fuel content will be lowered to 15 ppm.

These engines are restricted to CARB certified diesel fuel, which meets all of the fuel requirements listed in Subpart III.

The following condition will ensure compliance with this section:

- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201; 4801, 3.1; 17 CCR 93115; and 40 CFR 60 Subpart III]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1117</td>
<td>9</td>
</tr>
<tr>
<td>S-1131-1119</td>
<td>5</td>
</tr>
</tbody>
</table>

Section 60.4209 of this subpart requires that the operator/owner must install a non-resettable hour meter prior to startup of the engine(s).

These engines are equipped with a non-resettable hour meter.

The following condition will ensure compliance with this section:

- This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7; 17 CCR 93115; and 40 CFR 60 Subpart III]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1117</td>
<td>2</td>
</tr>
<tr>
<td>S-1131-1119</td>
<td>13</td>
</tr>
</tbody>
</table>
Section 60.4211(f) of this subpart requires that Emergency engine(s) may be operated for the purpose of maintenance and testing up to 100 hours per year. There is no limit on emergency use.

Engine S-1131-1117 is an emergency engine; ‘-1119 is not; therefore this section is applicable to the engine listed on S-1131-1117. The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year.

The following condition will ensure compliance with this section:

- This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 3.15; 17 CCR 93115; and 40 CFR 60 Subpart IIII]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1117</td>
<td>6</td>
</tr>
</tbody>
</table>

Section 60.4211(g) of this subpart requires the owner/operator to operate and maintain the engine(s) and any installed control devices according to the manufacturers written instructions.

The following condition will ensure compliance with this section:

- 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; and 40 CFR 60 Subpart IIII]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1117</td>
<td>10</td>
</tr>
<tr>
<td>S-1131-1119</td>
<td>11</td>
</tr>
</tbody>
</table>

AA. 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines

The EPA promulgated this new NSPS that would apply to new stationary combustion turbines greater than or equal to 1 MW that commence construction, modification or reconstruction after February 18, 2005. Gas turbines listed on permits S-1131-1037, ‘-1038, and ‘-1039 were constructed before February 18, 2005 and have not been modified (as defined in 40 CFR Part 60, Subpart A, Section 14) or reconstructed since this date. Therefore requirements of this NSPS are not applicable.

Engines are subject to this subpart if they are operated at a major or area source of Hazardous Air Pollutant (HAP) emissions. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. This stationary source is considered a major source of HAP emissions; therefore, engines listed on permits S-1131-833, '-1084, '-1117, and '-1119 are subject to this subpart.

40 CFR 63 Subpart ZZZZ requires the following engines to comply with 40 CFR 60 Subpart III:

1. New emergency engines located at area sources of HAPs
2. Emergency engines rated less than or equal to 500 bhp and located at major sources of HAPs

Engines listed on permits S-1131-833, '-1084, and '-1117 are stationary RICE rated less than or equal to 500 bhp and are located at a major area source of HAP emissions; therefore, these engines must comply with 40 CFR 60 Subpart III (discussed separately in the corresponding section).

Additionally, 40 CFR 63 Subpart ZZZZ requires engines rated greater 500 bhp and located at major sources of HAPs to meet the notification requirements of §63.6645(h); however, that section only applies if an initial performance test is required. The engine listed on permit S-1131-1119 is rated greater than 500 bhp and located at a major HAP source; however, an initial performance test was not required for this engine, the notification requirement is not applicable.


This subpart applies to major HAP sources as defined in either 40 CFR 63.2 or 63.761.

A major HAP Source is defined in 40 CFR Part 63.2 as a source emitting hazardous pollutants (as defined in 112b) in excess of 10 tons per year of any hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants.

40 CFR 63.761 defines a Major Source as the same as in Section 63.2 except that, for production field facilities only HAP emissions from glycol dehydration units and
storage vessels with the potential for flash emissions shall be aggregated for a major source determination.

Chevron does not have the potential to emit from glycol dehydration units and storage vessels (only Rule 4623 exempt front-line tanks would have the capacity to flash).

**DD. 40 CFR Part 82, Subpart B and F — Stratospheric Ozone**

These regulations apply to servicing motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC). Sections of this regulation were amended in 2004 and 2008.

The following conditions assure compliance with these requirements:

- 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 82, Subpart B. [40 CFR 82, Subpart B]

- 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 82, Subpart F. [40 CFR 82 Subpart F]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-0</td>
<td>28 and 29</td>
</tr>
</tbody>
</table>

**EE. 40 CFR Part 64 — Compliance Assurance Monitoring (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.
Major Source Thresholds (4/21/11 Revision of Rule 2201)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>lb/year</th>
<th>ton/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>20,000</td>
<td>10</td>
</tr>
<tr>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>140,000</td>
<td>70</td>
</tr>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>140,000</td>
<td>70</td>
</tr>
<tr>
<td>PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>200,000</td>
<td>100</td>
</tr>
<tr>
<td>CO</td>
<td>200,000</td>
<td>100</td>
</tr>
<tr>
<td>VOC</td>
<td>20,000</td>
<td>10</td>
</tr>
</tbody>
</table>

a. S-1131-598 — Fixed Roof Tank with Vapor Recovery System and Sulfur Removal System

This permit unit has an emissions limit for fugitive VOC but it does not have add-on controls for this criteria pollutant. Therefore, this permit unit is not subject to CAM for VOC.

This unit has add-on controls in the form of a sulfur removal system but does not have an emissions limit for SO<sub>x</sub>. Therefore, this unit is not subject to CAM for SO<sub>x</sub>, nor is it subject to CAM for any other pollutant.


§64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere.

These permit units are not subject to CAM since the vapor recovery system does not meet CAM's definition of a control device. The vapor recovery system consists of a vapor return or condensation system that connects to a gas pipeline distribution system which does not destroy or remove air pollutants prior to discharge to the atmosphere.


These permit units are not subject to CAM since the units do not have add-on controls.
a. **S-1131-943 — 62.5 MMBtu/hr Gas-Fired Steam Generator**

This permit unit has emissions limits for NO\textsubscript{X}, SO\textsubscript{X}, PM\textsubscript{10}, CO, and VOC but does not have add-on controls for these criteria pollutants. Additionally, this unit is dormant. Therefore, this permit unit is not subject to CAM for NO\textsubscript{X}, SO\textsubscript{X}, PM\textsubscript{10}, CO, and VOC.

e. **S-1131-1019 — 2.7 MMBtu/hr Gas-Fired Heater Treater**

This permit unit has emissions limits for NO\textsubscript{X}, SO\textsubscript{X}, PM\textsubscript{10}, CO, and VOC but does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for NO\textsubscript{X}, SO\textsubscript{X}, PM\textsubscript{10}, CO, and VOC.

f. **S-1131-941 — 27.5 MMBtu/hr Steam Generator with Low NO\textsubscript{X} burner and FGR**

This is a dormant emission unit and will be required to comply with all current district and federal rules upon any modifications resulting in the dormant status being removed.


Except for dormant emission units S-1131-65, '77, '94, '858, '966, '976, '992, '993, '994, '998, '1000, '1001, '1002, '1003, '1004, and '1016 these steam generators are equipped with FGR, are currently operating in compliance with Rule 4603, and are therefore required to meet the NO\textsubscript{X} emissions limit of 0.018 lb/MMBtu. To assess whether CAM is triggered the emissions factor corresponding to pre add-on (FGR) was calculated.

AP-42 Table 1.4-1 (7/98) lists the following emissions factors for small boilers < 100 MMBtu/hr:

<table>
<thead>
<tr>
<th>Emissions Factor (lb/10^6 scf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrolled</td>
</tr>
<tr>
<td>Controlled — low NO\textsubscript{X} burners</td>
</tr>
<tr>
<td>Controlled — Low NO\textsubscript{X} burners/Flue gas recirculation</td>
</tr>
</tbody>
</table>
The control efficiency of FGR and corresponding emissions factors are:

\[
100\% \times \left( \frac{\frac{50 \text{ lb}}{10^6} - \frac{32 \text{ lb}}{10^6}}{\frac{50 \text{ lb}}{10^6}} \right) = 36\%
\]

\[\frac{\frac{0.018 \text{ lb} \cdot NO_x}{\text{MMBtu}}}{1 - \frac{0.036 \text{ lb} \cdot NO_x}{\text{MMBtu}}} = \frac{0.028 \text{ lb} \cdot NO_x}{\text{MMBtu}}\]

Using these factors, the pre add-on control emissions can be calculated as:

\[
\frac{0.028 \text{ lb} \cdot NO_x}{\text{MMBtu}} \left( \frac{62.5 \text{ MMBtu}}{\text{hr}} \right) \frac{8,760 \text{ hr}}{\text{yr}} \left( \frac{\text{ton}}{2,000 \text{ lb}} \right) = 7.7 \text{ tons/yr} < 10 \text{ tons/yr}
\]

As pre-control annual emissions are less than 10 tons/yr enhanced CAM monitoring is not required.

Dormant emission units will be required to comply with all current district and federal rules (including Rule 4306 that will ensure compliance with this section) upon any modifications resulting in the dormant status being removed.


§64.1 defines a control device as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere.

These permit units are not subject to CAM since the casing gas collection system, where one is installed, does not meet CAM's definition of a control device. The casing gas collection system consists of piping that connects to a gas pipeline distribution system which does not destroy or remove air pollutants prior to discharge to the atmosphere.

i. S-1131-1008 — Thermally Enhanced Oil Recovery Operation with H2S Scrubbing System

This permit unit has an emissions limit for fugitive VOC but it does not have add-on controls for this criteria pollutant. Therefore, this permit unit is not subject to CAM for VOC.
This unit has add-on controls in the form of a sulfur removal system but does not have an emissions limit for SOX. Therefore, this unit is not subject to CAM for SOX, nor is it subject to CAM for any other pollutant.

j. S-1131-1037 — 249.0 MMBtu/hr Gas-Fired Turbine Engine Cogeneration System

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

This permit unit has an emissions limit for NOX, has an add-on control for this criteria pollutant, and with post control emissions greater than major source thresholds pre-control emissions will be greater than these thresholds as well; therefore, these permits are subject to CAM for NOX emissions.

This permit unit complies with CAM for NOX with the use of a continuous emission monitor (CEM) for NOX. The following conditions will be listed on the permit to ensure compliance:

- Cogeneration system shall include General Electric model LM-2500PE gas turbine, generator set rated at 22.89 MW, turbine combustor and compressor water injection systems, SCR, CO catalyst, and CEM’s for NOx, CO, & O2 [40 CFR 64 and District Rule 2201]

- CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [40 CFR 60.334 (b); 40 CFR 60; and District Rule 1080]

- The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2]

- CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080]
• Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and 40 CFR 64]

• The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 1080]

• The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080, 6.7]

• Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080]

• Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 4703, 5.1]

• Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [40 CFR 60.7 (b); 40 CFR 64; and District Rule 1080]

• The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [40 CFR 64 and District Rule 1080, 10.0]
k. S-1131-1038 and 1'-1039 — 58.2 MMBtu/hr Gas-Fired Turbine Engine Cogeneration Systems

These permit units have emissions limits for SO\textsubscript{x}, VOC, and PM\textsubscript{10} but do not have add-on controls for these criteria pollutants. Therefore, these permit units are not subject to CAM for SO\textsubscript{x}, VOC or PM\textsubscript{10}.

These permit units have an emissions limit for NO\textsubscript{x}, have add-on controls for this criteria pollutant, and with post control emissions greater than major source thresholds pre-control emissions will be greater than these thresholds as well; therefore, these permits are subject to CAM for NO\textsubscript{x} emissions.

This permit unit complies with CAM for NO\textsubscript{x} with the use of a continuous emission monitor (CEM) for NO\textsubscript{x}. The following conditions will be listed on the permit to ensure compliance:

- CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [40 CFR 60.334 (b); 40 CFR 60; and District Rule 1080]

- The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NO\textsubscript{x}, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2]

- CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080]

- Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and 40 CFR 64]
• The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 1080]

• The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080, 6.7]

• Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080]

• Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [40 CFR 60.7 (b); 40 CFR 64; and District Rule 1080]

• The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [40 CFR 64 and District Rule 1080, 10.0]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1037</td>
<td>1, 8, 22, 27, 28, 32, 34, 41, 42, 44, and 50</td>
</tr>
<tr>
<td>S-1131-1038 and -1039</td>
<td>9, 35, 36, 39, 40, 41, 44, 45, and 47</td>
</tr>
</tbody>
</table>


This engine does not have any add-on controls for any pollutant that would cause the unit to be subject to these requirements. Therefore, CAM is not required.
m. **S-1131-1084 — 83 bhp Gas-Fired Emergency Internal Combustion Engine**

This engine does not have any add-on controls for any pollutant that would cause the unit to be subject to these requirements. Therefore, CAM is not required.

n. **S-1131-1084 — 480 bhp Diesel-Fired Emergency Internal Combustion Engine**

This engine does not have any add-on controls for any pollutant that would cause the unit to be subject to these requirements. Therefore, CAM is not required.

o. **S-1131-1084 — 532 bhp Diesel-Fired Transportable Internal Combustion Engine**

This engine does not have any add-on controls for any pollutant that would cause the unit to be subject to these requirements. Therefore, CAM is not required.

p. **S-1131-724 — Gasoline Dispensing Operation**

This unit lists no emissions limits for NO\textsubscript{x}, SO\textsubscript{x}, PM\textsubscript{10}, CO or VOC. Therefore, CAM is not applicable to this operation.

q. **S-1131-1085, ‘-1086, and ‘-1087 — 83.3 MMBtu/hr Transportable Standby Flares**

These flares have no add-on controls for any pollutant that would cause these units to be subject to these requirements. Therefore, CAM is not required.

r. **S-1131-1108 — 83.0 MMBtu/hr Transportable Low-Use Flare**

This flare has no add-on controls for any pollutant that would cause the unit to be subject to these requirements. Therefore, CAM is not required.

**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.
An updated permit shield for Rules 4201, 4301, 4351, 4406, and 4801 has been added to the revised Steam Generator Permits as follows:

- Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2]

<table>
<thead>
<tr>
<th>Permit Unit(s)</th>
<th>Condition Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62, '63, '64, '66, '67, '68, '69, '70, '73, and '912</td>
<td>29</td>
</tr>
</tbody>
</table>

All other applicable permit shields have been retained, no other permit shields were requested or added.

X. ATTACHMENTS

A. Current Operating Permits
B. Detailed Facility List
C. Applicant Comments and District Response
D. EPA Comments and District Response
E. Final Renewed Title V Operating Permit
ATTACHMENT A

Current Operating Permits
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-62-31

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: 05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMSTU/HR NATURAL GAS FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-36; DIS# 20630-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN MODEL GLE LOW-NOX BURNER, AND NORTH AMERICAN OPTIMIZER: LIMIT FUEL SULFUR CONTENT TO 1 GR-S/100 DSCF FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

4. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

5. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.007 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
5-13-14 02:31:  Jan 11 2012 23:33AM - RICHARD - Join Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.011 lb-NOx/MMBtu and 50 ppmv CO @ 3% O2 or 0.037 lb-CO/MMBtu [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

7. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

8. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

18. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

22. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

CONDITIONS CONTINUE ON NEXT PAGE
28. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

30. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

34. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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

36. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-63-26
SECTION: 05 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG#60-39, DIS#20631-79) WITH NORTH AMERICAN GLE LOW-NOX BURNER, FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During startup and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-64-26 EXPIRATION DATE: 02/28/2007
SECTION: 05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-40; DIS# 20632-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 0.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rule, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-65-24
EXPIRATION DATE: 02/28/2007

SECTION: 05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS-FIRED C E, NATCO STEAM GENERATOR (HSG# 60-41; DIS# 20633-79)
WITH FLUE GAS RECIRCULATION, NORTH AMERICAN, MODEL #5131-HGCR-62.5, BURNER AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER)

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 Rules 2210, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.001 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

8. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

9. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

11. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. 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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

15. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

17. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

19. 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 rate of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

20. 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

21. 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; or 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

22. 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
23. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

24. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1995), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-66-25
EXPIRATION DATE: 02/28/2007
SECTION: 05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-42, DIS# 20634-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER. (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MBtu or 0.006 lb-VOC/MBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 15,858 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hv (MBMtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-67-26
SECTION: 05   TOWNSHIP: 29S   RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO NATURAL GAS-FIRED STEAM GENERATOR (HSG# 60-43; DIS# 20635-79) WITH FLUE GAS RECIRCULATION AND A NORTH AMERICAN GLE LOW-NOX BURNER (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TC, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

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

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During startup and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1160, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 109, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TC, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
33. 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]

34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1131-63-25  
EXPIRATION DATE: 02/28/2007

SECTION: 05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-45; DIS# 20637-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER. (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 15,858 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
 These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FTPD/TCD, performed in the laboratory, fuel hv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-70-25
EXPIRATION DATE: 02/28/2007

SECTION: 05      TOWNSHIP: 29S     RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-46, DIS# 20638-79) WITH A
NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (SAN JOAQUIN
LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam
   generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title
   V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to
   the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu.
   [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2
   or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and
   4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the
   following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day,
   and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of
   the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through
   Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall
   be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown.
   [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to
   reach operating temperature and pressure once fuel is supplied, including the time required by the emission control
   system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and
   pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally
   Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content
   source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6]
   Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-73-25
EXPIRATION DATE: 02/28/2007
SECTION: 05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-49; DIS# 20641-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.005 lb-PM/10/MMMBtu or 0.006 lb-VOC/MMMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMMBtu, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMMBtu or 0.084 lb-CO/MMMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. When pipeline quality natural gas is used to fuel this unit, 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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 1943 in conjunction with ASTM D 3588. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of volume of fuel gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.108 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit
10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 150 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit
34. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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


SECTION: 19  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-69; DIS# 20610-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (CANEFIELD LEASE)

PERMIT UNIT REQUIREMENTS

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

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

3. All alternate monitoring parameters: emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

5. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. Emissions from the steam generator shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu, 1.026 lb-SOx (as SO2)/MMBtu, 0.006 lb-VOC/MMBtu. [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.
7. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 (or 0.0182 lb-NOx/MMBtu), or 50 ppmv CO @ 3% O2 (or 0.037 lb-CO/MMBtu). [District NSR Rule and District Rules 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

8. During start-up and shutdown, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, or 55.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306, 6.1] Federally Enforceable Through Title V Permit

12. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District NSR Rule and District Rule 4406] Federally Enforceable Through Title V Permit

13. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and Rule 4406] Federally Enforceable Through Title V Permit

14. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2; 4305, 6.3.1; 4306, 6.3.1 and 4351] Federally Enforceable Through Title V Permit

16. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2; 4305, 6.3.1; 4306, 6.3.1; and 4351] Federally Enforceable Through Title V Permit

17. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2; 4305, 6.3.1; 4306, 6.3.1; and 4351] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

19. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D1072, D3246, D4084 or a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1081; 4305, 6.2; 4306, 6.2; 4351] Federally Enforceable Through Title V Permit

22. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [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.
23. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

24. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

26. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1.] Federally Enforceable Through Title V Permit

27. 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

28. 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; 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 for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. 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 D1072, D4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D11826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

31. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [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.
34. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2.4; 4306, 6.3.2.4; and 4351, 6.3] Federally Enforceable Through Title V Permit

35. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305, 6.3.2.1 and 4306, 6.3.2.1] Federally Enforceable Through Title V Permit

36. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 4305, 6.3.2.6 and 4306, 6.3.2.6] Federally Enforceable Through Title V Permit

37. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g., from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 6.3.2.2 and 4306, 6.3.2.2] Federally Enforceable Through Title V Permit

38. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 6.3.2.5 and 4306, 6.3.2.5] Federally Enforceable Through Title V Permit

39. 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

40. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

PERMIT NO: S-1131-82-28  ISSUANCE DATE: 08/02/2010

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

LOCATION: HEAVY OIL CENTRAL
           KERN COUNTY, CA

SECTION: SE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MM BTU/HR NATURAL GAS/VAPOR RECOVERY GAS- FIRED C.E. NATCO STEAM
GENERATOR (HSG# 60-88, DIS# 20643-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN MODEL GLE
MAGNA-FIAME (OR DISTRICT APPROVED EQUIVALENT), AND NORTH AMERICAN OPTIMIZER - SJ LOWER. LIMIT
FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF OR REDUCE SOX BY 95% OR LIMIT EXHAUST SO2 TO 9 PPMV FOR
RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR
   70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable
   Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application
   to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4.
   [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320
   Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control
   system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5.0 gr S/100 scf
   unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201,
   4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with
the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
G-1131-82-28  Jan 11 2012 3:24AM - RICKREDK - Joint Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu or 1.026 lb-SOx/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

20. A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

22. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel’s sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]

24. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

30. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

33. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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 1076 and Rule 4320]
San Joaquin Valley
Air Pollution Control District

SECTION: 29  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STRUTHERS STEAM GENERATOR (HSG# 70-08, DIS# 20627-81) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN, MODEL #5131-HGCR-62. 5, BURNER AND NORTH AMERICAN OPTIMIZER (CANFIELD LEASE)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.108 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District NSR Rule, Rules 4305, 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and Rule 4406] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 66 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 108! (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

PERMIT NO: S-1131-95-25
ISSUANCE DATE: 08/02/2010

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MM BTU/HR NATURAL GAS/VAPOUR RECOVERY GAS/GAS FIRED STRUTHERS STEAM GENERATOR (HSG# 70-31, DIS# 20642-79) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER - SJ LOWER. LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF OR REDUCE SOX BY 95% OR LIMIT EXHAUST SO2 TO 9 PPMV FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1131-598. The combined fuel sulfur content from these units shall not exceed 5.0 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv @ 3% O2 via scrubbing. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadretdin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-95-25: Jan 11 2012 9:24 AM - RICARDY - Document is Not Revised
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu or 1.026 lb-NOx/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 43.5 lb-CO/day, and 14,253 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]

24. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. 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 4329. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM 6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

31. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

33. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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]
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-98-31

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SE05 TOWNSHIP: 295 RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HSG# 70-44; DIS# 20608-82) WITH A NORTH AMERICAN MODEL #GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION; LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF OR REDUCE SOX BY 95% OR LIMIT EXHAUST SO2 TO 9 PPMV FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2261 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1131-598. The combined fuel sulfur content from these units shall not exceed 5.0 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv @ 3% O2 via scrubbing. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadreddin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-98-31: Jan 11 2017 2:36 AM - RICKARDS: Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu or 0.006 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the fuel sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rule 2201 and 1081] Federally Enforceable Through Title V Permit

20. A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

22. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]

24. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 190, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM 6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

31. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. Records shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

33. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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]
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-99-32
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA
SECTION: SE05  TOWNSHIP: 29S  RANGE: 28E

ISSUANCE DATE: 08/02/2010

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HSG# 70-45, DIS# 20609-82) WITH A NORTH AMERICAN MODEL GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION. LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF OR REDUCE SOX BY 95% OR LIMIT EXHAUST SO2 TO 9 PPMV FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1131-598. The combined fuel sulfur content from these units shall not exceed 5.0 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv @ 3% O2 via scrubbing. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadeghi, Executive Director / APCO

DAVID WARNER, Director of Permit Services
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu; or 0.006 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rule 2201 and 1081] Federally Enforceable Through Title V Permit

20. A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

22. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]

24. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM 6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

31. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. Records shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

33. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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]
PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam-enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District NSR Rule] Federally Enforceable Through Title V Permit

5. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

6. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

15. 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 Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. 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

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

25. 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 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

28. 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

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

30. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

34. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

35. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

36. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

37. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

38. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

39. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

41. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit

42. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit
43. 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 analyze/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

44. 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

45. 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

46. 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

47. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. The date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

48. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

49. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

50. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] 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-1131-448-5
EXPIRATION DATE: 02/28/2007

SECTION: SE30  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
31,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, GLOBE 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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]
SECTION: SW32  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #TK3-7

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-529-4  EXPIRATION DATE: 02/28/2007
SECTION: SW4  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #0.5GK27

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-530-4
EXPIRATION DATE: 02/28/2007
SECTION: SW5 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #0.5GK25

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-531-4
EXPRIATION DATE: 02/28/2007
SECTION: SW4   TOWNSHIP: 29S   RANGE: 28E
EQUIPMENT DESCRIPTION:
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #0.5GK26

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-586-4
EXPIRATION DATE: 02/28/2007
SECTION: SW04  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
42,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, GOLD STANDARD 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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-592-3
EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, S. PROCESS 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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-594-7
EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
190,260 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, SETTLING #37 AUTHORIZED TO RECEIVE FLUIDS FROM S-1131 AND S-1127

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]

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]


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]

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]

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]

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]

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]

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]

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

1. Tank shall only be vented to vapor control system shared with crude oil processing tanks S-1131-608, ‘-613, ‘-629, ‘-630, ‘-638, ‘-641, ‘-650, ‘-651, ‘-1097 and vapor control system listed on S-1131-885. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Sulfatreat system shall be located downstream of sampling point used for verification that gas processed by tank S-1131-598 contains < 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

4. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Collected VOC vapors shall be incinerated in steam generators S-1131-82, ‘-95, ‘-98, ‘-99, and ‘-859, or disposed of in Department of Oil, Gas, and Geothermal Resources (DOGGR) approved vapor disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit

6. 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

7. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 113.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

9. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District NSR Rule] Federally Enforceable Through Title V Permit

10. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

11. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [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.
12. Operator shall conduct quarterly sampling from the tank vapor control system's emergency gas exhaust header sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District NSR Rule] Federally Enforceable Through Title V Permit

13. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a written record of the VOC content of the gas sampled. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

20. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

21. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

23. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit
24. 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


26. 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

27. When a D.O.G.G.R. disposal well is changed, or a new well is added, permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

31. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

33. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

34. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

35. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

36. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

37. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
38. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

39. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-599-7  EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
227,200 GALLON FIXED-ROOF CRUDE OIL WASH TANK #1-A AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-600-3
EXPIRATION DATE: 02/28/2007

SECTION: NE05    TOWNSHIP: 29S    RANGE: 28E

EQUIPMENT DESCRIPTION:
248,640 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #6600 S OT

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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-602-3

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, N. PROCESS 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]

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]


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]

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]

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]

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]

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]

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]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-603-7
EXPIRATION DATE: 02/28/2007
SECTION: NE05
TOWNSHIP: 29S
RANGE: 28E

EQUIPMENT DESCRIPTION:
187,740 GALLON FIXED-ROOF CRUDE OIL SETTLING TANK #43 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-608-22

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District NSR Rule] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4622] Federally Enforceable Through Title V Permit

5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-610-7  EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
190,260 Gallon Fixed Roof Crude Oil Settling Tank #20 Authorized for Receipt of Fluids From Station 36 "Surge" Tanks Receiving Production From Steam-Enhanced Wells With Closed Well Casing Vents (S-1131 And S-1127)

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]

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]


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]

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]

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]

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]

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]

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]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-613-20  EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
420,000 GALLON (10,000 BBL) 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District NSR Rule] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 30,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 7 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-615-7
EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #2-B AUTHORIZED FOR RECEIPT OF FLUIDS FROM
STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL
CASING VENTS (S-1131 AND S-1127)

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]

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]

3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard
gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of
Petroleum and Petroleum Products." [District Rule 4623]

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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-619-7  
EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
227,200 GALLON FIXED ROOF CRUDE OIL WASH TANK #1-B AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-621-7
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EXPIRATION DATE: 02/28/2007
EQUIPMENT DESCRIPTION:
187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #45 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

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]

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]


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]

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]

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 6.2.1.5 of Rule 4623 are met. [District Rule 4623]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-623-7

EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #44 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

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]

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]


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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-625-7  EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #46 AUTHORIZED FOR RECEIPT OF FLUIDS FROM
STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL
CASING VENTS (S-1131 AND S-1127)

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]

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]

3. The API gravity of crude oil or petroleum distillate shall be determined 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]

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]

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]

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 6.2.1.1.2. through 6.2.1.1.5 of Rule 4623 are met.
[District Rule 4623]

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]

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]

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]

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

PERMIT UNIT: S-1131-626-7 EXPIRATION DATE: 02/28/2007
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-2 AUTHORIZED FOR RECEIPT OF FLUIDS FROM
STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

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]
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]
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]
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]
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]
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]
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]
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]

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]

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]


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]

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]

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 6.2.1.5 of Rule 4623 are met. [District Rule 4623]

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]

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]

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]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-628-7
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-1 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

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]

2. Permitee 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]


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]

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]

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]

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]

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]

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]

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-629-12  EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-596

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal no leaks at which time inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
Permit Unit: S-1131-630-12
Expiration Date: 02/28/2007
Section: NE05  Township: 29S  Range: 28E
Equipment Description:
1,579,200 Gallon Fixed Roof Crude Surge Tank #7 (Station 36) with Vapor Control System Listed on S-1131-598

Permit Unit Requirements

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

2. Permitee 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]


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]

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The peratee shall also conduct an API gravity testing. [District Rule 4623]

6. Instead of testing each uncontrolled fixed roof tank, the peratee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1 through 6.2.1.5 of Rule 4623 are met. [District Rule 4623]

7. Permitee 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]

8. The peratee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]

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]

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

PERMIT UNIT: S-1131-632-7  EXPIRATION DATE: 02/28/2007
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-5 AUTHORIZED FOR RECEIPT OF FLUIDS FROM
STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL
CASING VENTS

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]

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]

3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard
   gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of
   Petroleum and Petroleum Products." [District Rule 4623]

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]

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]

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]

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]

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]

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]

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

PERMIT UNIT: S-1131-633-7
EXPIRATION DATE: 02/28/2007
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-6 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

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]

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]


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]

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]

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]

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]

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]

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]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-634-7  
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E  
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-4 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

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]

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]


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]

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]

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 6.2.1.15 of Rule 4623 are met. [District Rule 4623]

7. Permittee shall submit the records of TVP and API gravity testing to the APCI/C 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]

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]

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]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-635-7
EXPIRATION DATE: 02/28/2007

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #2-A AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

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]

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]


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]

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]

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]

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]

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]

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]

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-636-3  
EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
443,940 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #10000 SHIP

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]

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]


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]

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]

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]

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]

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]

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]

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-641-12
EXPIRATION DATE: 02/28/2007

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or wherever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 °F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. 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

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District NSR Rule] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. TVP shall be determined using District Rule 4623 test methods. [District Rules 1070, 2520, 9.3.2 and 4623] Federally Enforceable Through Title V Permit

15. 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


17. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit

19. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

25. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

26. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
2,287,320 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #60GK1

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]

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]


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]

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]

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]

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]

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]

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]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-663-3
EXPIRATION DATE: 02/28/2007

SECTION: SE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
10,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #TK2-4

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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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.i. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]

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]

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]

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]

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

PERMIT UNIT: S-1131-671-3  
EXPIRATION DATE: 02/28/2007

SECTION: SW05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:  
21,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #0.5GK36

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]

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]


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]

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]

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]

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]

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]

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]

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]

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]


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]

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]

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]

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]

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]

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]
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-716-21
PERMIT UNIT REQUIREMENTS

1. Operation shall include no more than 6,280 steam enhanced crude oil production wells with closed casing vents. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

5. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by an Authority to Construct. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Steam-enhanced production wells with closed well casing vents shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of the closed casing vent wells. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Total number of well casing and casing vent leaks from steam-enhanced oil production wells in this TEOR operation shall not exceed one leak detected for each 20 wells tested, with a minimum of 362 wells tested. A leak is defined as a reading in excess of 10,000 ppm when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit

8. 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, and other (pressure relief devices, compressor seals, polished rods stuffing boxes, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/vapor, liquid with an API gravity of 20 degrees or more, and liquid with an API gravity less than 20 degrees. [District NSR Rule] Federally Enforceable Through Title V Permit

9. Number of fugitive components serving well casing and casing vents shall not exceed: 55,998 valves; 151 pump seals; 1,508,592 connectors; 110,634 flanges; 6,566 open-ended lines (sample connections, drains, bleed valves, etc.); and 6,280 other (pressure relief devices, compressor seals, polished rods stuffing boxes, meters, etc). [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. Component screening shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB’s California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit

14. All other components such as diaphragms, dump arms, instruments, meters, polished rods stuffing boxes shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

16. 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 County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

17. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.2.4] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended December 17, 1992), formerly District Rule 465.1, excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. The crude oil production wells associated with this unit do not have production enhanced by in-situ combustion. Therefore, the requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

22. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
23. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

24. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

25. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

26. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

27. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

28. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

30. 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 Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

31. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit
32. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, reinspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

33. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

34. 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

35. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

36. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

37. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

38. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

39. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

40. 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 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

41. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

42. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

43. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
44. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

45. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

46. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

47. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

48. An operator shall maintain copies of the facility at the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

49. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

50. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

51. 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. [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. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

53. 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. [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 testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

55. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

56. 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. [District Rule 4401 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.
57. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 ofproduced 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

58. 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

59. 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

60. 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

61. 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

62. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

63. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

64. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] 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.
65. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-724-6
EXPIRATION DATE: 02/28/2007
SECTION: NEO5 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
GASOLINE DISPENSING OPERATION WITH TWO 10,000 GALLON UNDERGROUND STORAGE TANKS SERVED BY
OPW PHASE I ENHANCED VAPOR RECOVERY SYSTEM (VR-102-A), AND THREE FUELING POINTS WITH THREE
GASOLINE DISPENSING NOZZLES SERVED BY HEALY PHASE II ENHANCED VAPOR RECOVERY SYSTEM
WITHOUT ISD (VR-201-E) (KERN RIVER)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The permittee shall store or dispose of gasoline in closed, non-leaking containers. The containers shall remain closed
   at all times except when depositing or removing the contents of the containers or when the container is empty. [District
   Rule 4621]
3. The vapor recovery systems and their components shall be installed, operated, and maintained in accordance with the
   State certification requirements. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
4. The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the
   manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and
   regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the
   State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health
   of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control
   Board that have been made conditions of the certification. [District Rules 4621 and 4622]
5. Each ARB certified vapor recovery system shall be tested within 60 days of major modification or installation, except
   as otherwise allowed by this permit. For this condition, a major modification is considered to be replacing, repairing,
   or upgrading 75% or more of the certified system. [District Rule 4622, 6.2.2] Federally Enforceable Through Title V
   Permit
6. The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB
   certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be
   removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule
   4622, 5.3] Federally Enforceable Through Title V Permit
7. No owner or operator shall tamper with, or permit tampering with, the ARB certified vapor recovery system in a
   manner that would impair the operation or effectiveness of the system. [District Rule 4622, 5.11] Federally
   Enforceable Through Title V Permit
8. All nozzles shall be equipped with coaxial hose configurations. [District Rule 4622] Federally Enforceable Through
   Title V Permit
9. Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.1.1]
   Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with an ARB certified Phase I system and maintained and operated according to manufacturers specifications. [District Rule 4621, 3.1 and 5.1.1] Federally Enforceable Through Title V Permit

11. Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere. [District Rule 4622, 5.1] Federally Enforceable Through Title V Permit

12. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rules 4622 and 2520, 9.1] Federally Enforceable Through Title V Permit

13. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.2.1] Federally Enforceable Through Title V Permit

14. No person shall top off a motor vehicle fuel tank. [District Rule 4622, 5.9] Federally Enforceable Through Title V Permit

15. No gasoline shall be transferred into vehicle fuel tanks if the vapor recovery system contains any defect listed in Section 94006 of Title 17 of the California Code of Regulations or in Section 5.4 of SJVUAPCD Rule 4622 (as amended February 17, 1994) until the defect has been repaired, replaced, or adjusted as necessary to correct the defect, and the District has reinspected the system or has authorized its use pending reinspection. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

16. No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622]

17. Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has been notified of the repairs, and/or the District has inspected and authorized the tagged equipment for use. A log containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 2520, 9.3.2 and 4622, 5.5] Federally Enforceable Through Title V Permit

18. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621 and 4622]

19. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621 and 4622]

20. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621 and 4622]

21. The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621 and 4622]

22. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621]
23. The permittee shall perform and pass a Dynamic Back Pressure Test using ARB TP-201.4 at least once every 12 months. [District Rule 4622]

24. The permittee shall perform and pass a Static Leak Test for Underground Tanks using ARB TP-201.3 in accordance with the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rules 4621 and 4622]

25. The permittee shall perform and pass a Vapor-to-Liquid Volume Ratio Test using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every six (6) months. [District Rule 4622]

26. The permittee shall perform and pass a Static Pressure Test for the Healy Clean Air Separator using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622]

27. The permittee shall perform and pass a Dispenser vapor Line Tightness test for each dispenser using the test procedure defined in the Installation, Operation and Maintenance manual of the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622]

28. The permittee shall perform and pass a Pressure Integrity of Drop Tube Drain Valve Assembly Test using ARB TP-201.1C or a Pressure Integrity of Drop Tube Overfill Protection Devices Test using ARB TP-201.1D if an overfill protection device is installed, at least once every 36 months. [District Rule 4621]

29. The permittee shall perform and pass a Static Torque of Rotatable Phase I Adaptors test using ARB procedure TP-201.1B at least once every 36 months. [District Rule 4621]

30. The District shall be notified within 24 hours of the facility's pass/fail status after the performance of each test. [District Rule 1081]

31. The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rule 4622]

32. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 2520, 9.3.2 and 4622, 3.6.5.6] Federally Enforceable Through Title V Permit

33. Each operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

35. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4.2 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear-prone components. [District Rule 4622]
36. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rule 4622]

37. Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621]

38. Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the fueling instructions required by this permit are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs; 2) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 3) the hoses are not torn, flattened or crimped; 4) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 5) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622]

39. In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622]

40. The gasoline throughput for this permit unit shall not exceed 600,000 gallons in any one calendar year. [District Rule 4622]

41. The operator shall maintain monthly gasoline throughput records. [District Rule 4622]

42. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622]

43. The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622]

44. All records required by this permit shall be retained on-site for a period of at least five years, and shall be made available for inspection upon request. [District Rule 4622]

45. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4621 except section 5.2.2 (as amended May 20, 1993), 4622 (as amended February 17, 1994), and 4623, section 5.4 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. This unit is not equipment used for light crude oil and gas production, natural gas processing, nor organic liquid loading. Therefore, the requirements of County Rules 412.1 (Kern and Tulare), 411.1 (Stanislaus and Merced), 411.2 (San Joaquin), 412 (Fresno, Kings, Stanislaus, Merced, and San Joaquin), 413 (Kern and Tulare), and 419 (Madera) do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
47. This unit is not equipment used for light crude oil and gas production, natural gas processing, nor organic liquid loading, and is not an internal or external floating roof tank with capacity of 19,800 gallons or more. Therefore, the requirements of District Rules 4403 (as amended February 16, 1995), 4623, except section 5.4 (as amended December 17, 1992), and 4624 (as amended December 17, 1992) do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. This unit is not associated with loading at a bulk gasoline terminal (as defined in 40 CFR 60.501). Therefore, the requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-833-2
EXPIRATION DATE: 02/28/2007
SECTION: NW5 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
240 BHP DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

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. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit

4. 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

5. 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

6. 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

7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [17 CCR 93115]

8. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit

9. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

10. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-858-13
EXPIRATION DATE: 02/28/2007

SECTION: SE29  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED NATIONAL STEAM GENERATOR (HSG# 50-43; DIS# 20628-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN MODEL #5131-HGCR-62.5 BURNER, AND NORTH AMERICAN OPTIMIZER - (CANFIELD LEASE)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.109 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and Rule 4406] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District NSR Rule] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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 2526, 9.3.2] Federally Enforceable Through Title V Permit
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

PERMIT NO: S-1131-859-16
ISSUANCE DATE: 08/02/2010

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MM BTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (HSG# 50-51, DIS# 19161 - 75) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME, LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER): LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF OR REDUCE SOX BY 55% OR LIMIT EXHAUST SO2 TO 9 PPMV FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1131-598. The combined fuel sulfur content from these units shall not exceed 5.0 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv @ 3% O2 via scrubbing. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-859-16 Jan 11 2012 6:34AM - RICKARD I Jail Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu; or 0.006 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

9. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 43.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

10. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

14. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

16. 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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

17. A source test to demonstrate compliance with S0x emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
19. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]

21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

23. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 for ASTM D2282 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TC performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

CONDITIONS CONTINUE ON NEXT PAGE
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of these runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

31. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. Records shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

33. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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]
San Joaquin Valley
Air Pollution Control District

SECTION: SW32 TOWNSHIP: 28S RANGE: 28E
EQUIPMENT DESCRIPTION:
56,880 GALLON 35.5 FT. HIGH X 17 FT. DIAMETER, FIXED ROOF, CONSTANT LEVEL, CRUDE OIL WASH TANK

PERMIT UNIT REQUIREMENTS

1. Tank shall operate at constant liquid level, and the maximum temperature of the liquid stored shall not exceed 165 degrees Fahrenheit [District NSR Rule] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored in this permit unit shall not exceed 0.4 psia without prior District approval [District NSR Rule] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Permittee shall keep accurate monthly records of the storage temperature of liquids stored in the tank, and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Permittee shall maintain accurate records of Reid vapor pressure updated at least once every 12 months, for a period of five years, and shall make records readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District 4623 (amended June 18, 1998). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended June 18, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

1. Tank shall operate at constant liquid level, and the maximum temperature of the liquid stored shall not exceed 165 degrees Fahrenheit [District NSR Rule] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored in this permit unit shall not exceed 0.4 psia without prior District approval [District NSR Rule] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Permittee shall keep accurate monthly records of the storage temperature of liquids stored in the tank, and such records shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Permittee shall maintain accurate records of Reid vapor pressure updated at least once every 12 months, for a period of five years, and shall make records readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District 4623 (amended June 18, 1998). Determinations shall be made annually during the summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended June 18, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-877-12

SECTION: 04  TOWNSHIP: 29S  RANGE: 28E

EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR #46 WITH FGR, NORTH AMERICAN MODEL GLE 4231 BURNER AND O2 CONTROLLER (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. 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. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

3. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

5. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

7. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

9. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Total sulfur content of PUC quality natural gas combusted shall not exceed 0.2 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: SOx (as SO2): 64.0 lb/day, PM10: 115.2 lb/day, or VOC: 4.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 28 ppmvd @ 3% O2. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

14. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

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

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, 6.2, and 4306, 6.2] Federally Enforceable Through Title V Permit
22. 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 uncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

24. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

25. 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

26. 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; 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

27. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [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.
32. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

33. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit


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

1. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

3. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

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

5. Emissions from the steam generator shall not exceed any of the following limits: 0.055 lb-Sox/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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

9. 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

10. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/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. 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 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

12. 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

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

14. 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

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

16. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 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, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 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.
31. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

32. 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

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1970, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. Formerly S-1143-5.

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

PERMIT UNIT: S-1131-880-11
SECTION: 04  TOWNSHIP: 29S  RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR #140 WITH A
NORTH AMERICAN MODEL #GLE-4231 LOW-NOX BURNER AND FLUE GAS RECIRCULATION (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. 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. [District
Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

3. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions
representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated,
maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol
approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either
taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out
over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V
Permit

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2
concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of
exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken
to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable
Through Title V Permit

5. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume
flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit

6. All wells producing from strata steamd 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
7. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOV vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Permitee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

9. Permitee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit

10. The permittee shall keep daily records of the amount of natural gas combusted and the amount of TEOR/TVR gas incinerated. [District NSR Rule and 1070] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: SOx (as SO2): 105.1 lb/day, PM10: 19.2 lb/day, or VOC: 4.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @3% O2, or CO: 1.90 lb/hr or 41 ppmvd @3% O2. [District NSR Rule and District Rules 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305, 5.5.6.1 and 4306, 5.3.1] Federally Enforceable Through Title V Permit

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

15. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis, using District approved portable analyzers, in any calendar month in which the unit operates. [District Rules 2201, 2520, 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. 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 2520, 9.3.2, 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

18. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

24. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

25. 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

26. 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; 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

27. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

33. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Formerly S-1143-6-8.
PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, vapor recovery gas volume flowmeter. [District NSR Rule 4305] Federally Enforceable Through Title V Permit

2. All wells producing from strata steamied 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] Federally Enforceable Through Title V Permit

3. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

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

5. 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

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

7. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb- SOx/MBtu, 0.013 lb- PM10/MBtu, or 0.0028 lb-VOC/MBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. 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

These terms and conditions are part of the Facility-wide Permit to Operate.
11. 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

12. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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

16. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

17. 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

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

19. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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

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

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

28. 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

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit
33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

36. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

38. 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

39. 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

40. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. Formerly S-1143-6-8.
San Joaquin Valley
Air Pollution Control District

SECTION: 4    TOWNSHIP: 29S    RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (#143) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND O2 CONTROLLER (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Permittee shall maintain with the permit a current listing of all thermally enhanced well vent control systems and tank vapor recovery systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

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

4. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb-SOx/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 41 ppmvd CO @ 3% O2 or 0.03 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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

9. 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

10. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 45.0 lb-CO/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. 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 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

15. 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

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

17. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.3 and 4306, 5.5.3] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCD prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the C2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 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.
32. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit

34. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT: S-1131-884-14

SECTION: 04  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR #144
EQUIPPED WITH NORTH AMERICAN MAGNA-FRAME GLE ULTRA LOW NOX BURNER AND FLUE GAS
RECIRCULATION. (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain with the permit a current listing of all thermally enhanced well vent control systems and tank vapor recovery systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

4. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb-SOx/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. During the initial “shakedown” period emissions from the steam generator shall not exceed any of the following limits: 30 ppmvd NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, 0.07 lb-SOx/MMBtu, 0.013 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201] Federally Enforceable Through Title V Permit

9. During a shakedown period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emission rate shall not exceed 30 ppmvd @ 3% O2 or 0.036 lb/MMBtu. The shakedown period shall be concluded prior to the applicable Rule 4306 compliance deadline selected for this unit. Permittee shall maintain a record of the date of initial operation and shall make such records readily available for District inspection upon request. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. 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

11. 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

12. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

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

15. 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

16. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

17. 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

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

19. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. 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 3.9 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

27. 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

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

34. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit

36. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

37. 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

38. 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

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Formerly S-1143-10.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-885-25
EXPIRATION DATE: 02/28/2007
SECTION: SW03  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903, S-1131-909, and S-1131-598 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rates shall be calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 and the total number of vapor components. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC emission rate from components associated with vapor recovery trunk-line up to and including vapor compressors and approved disposal devices shall not exceed 23.9 lb/day. [District Rule 2201]

7. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall conduct quarterly sampling from the tank vapor control system's inlet header to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]


15. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '629, '630, '638, '641, '650, '651, and '1097). [District Rule 2201] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080]

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080]

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010]

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080]

20. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{V}{Q}, \) where \( t = \text{time}, V = \text{tank volume (cubic feet)}, \) and \( Q = \text{flow rate to the vapor control system as determined using appropriate engineering calculations}. \) [District Rule 2080]

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediments may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080]

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080]

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080]

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080]

25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

26. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
27. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

28. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

31. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

32. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623]

33. TVP and API gravity shall be determined using District Rule 4623 Section 6.4 test methods. [District Rule 4623]

34. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Permittee shall sample for liquid(s) true vapor pressure and API gravity at least annually and whenever a source of the liquid(s) change. Such records shall be made readily available for District inspection upon request for a period of at least five (5) years. [District Rule 4623]

36. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit

37. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit


7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '629, '630, '638, '641, '650, '651, and '1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permitee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

11. Permitee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 23 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \times V/Q}{Q} \), where \( t = \text{time}, V = \text{tank volume (cubic feet)}, \) and \( Q = \text{flow rate to the vapor control system as determined using appropriate engineering calculations} \). [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seats shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

19. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit

25. TVP and API gravity shall be determined using District Rule 4623 Section 6.4 test methods. [District Rule 4623] Federally Enforceable Through Title V Permit

26. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Permittee shall sample for liquid(s) true vapor pressure and API gravity at least annually and whenever a source of the liquid(s) change. Such records shall be made readily available for District inspection upon request for a period of at least five (5) years. [District Rule 4623] Federally Enforceable Through Title V Permit

28. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [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. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit


7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '629, '630, '638, '641, '650, '651, and '1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \, V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

19. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit

25. TVP and API gravity shall be determined using District Rule 4623 Section 6.4 test methods. [District Rule 4623] Federally Enforceable Through Title V Permit

26. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Permittee shall sample for liquid(s) true vapor pressure and API gravity at least annually and whenever a source of the liquid(s) change. Such records shall be made readily available for District inspection upon request for a period of at least five (5) years. [District Rule 4623] Federally Enforceable Through Title V Permit

28. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [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. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Steam generators authorized to incinerate collected VOC vapors are S-1131-877, '-880, '-881, '-882, '-883, and '-908. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 V}{Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

19. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit

25. TVP and API gravity shall be determined using District Rule 4623 Section 6.4 test methods. [District Rule 4623] Federally Enforceable Through Title V Permit

26. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Permittee shall sample for liquid(s) true vapor pressure and API gravity at least annually and whenever a source of the liquid(s) change. Such records shall be made readily available for District inspection upon request for a period of at least five (5) years. [District Rule 4623] Federally Enforceable Through Title V Permit

28. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-903-15
SECTION: NW09 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2007
EQUIPMENT DESCRIPTION: TEOR OPERATION WITH 316 STEAM-ENHANCED OIL PRODUCTION WELLS (241 STEAM DRIVE WELLS/75 CYCLIC WELLS)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-885, '886, '891, and '892, or to S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 201.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in gas processed shall not exceed 30.7% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC content shall be tested annually using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation, and shall consist of sampling of at least one well per producing zone. 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 analyzed by CARB Method 422. [District Rule 4401, section 6.3.2 and District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit accurate fugitive component counts 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

7. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

8. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

9. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

10. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

11. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] 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

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-908-15
EXPIRATION DATE: 02/28/2007
SECTION: 4 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOUR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (#71) WITH A NORTH AMERICAN GLE LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM (FGR), AND O2 CONTROLLER

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/scf at operating conditions, nor 0.1 grain/scf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

2. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District: NSR Rule] Federally Enforceable Through Title V Permit

3. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 4406, 4.0] Federally Enforceable Through Title V Permit

4. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 4406, 4.0] Federally Enforceable Through Title V Permit

5. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Emissions from the steam generator shall not exceed any of the following limits: 0.055 lb SOx/MMBtu, 0.013 lb PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District NSR Rule and District Rule 4301, 5.2] Federally Enforceable Through Title V Permit

7. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District NSR Rule and District Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

8. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb NOx/MMBtu or 0.084 lb CO/MMBtu. [District NSR Rule and 4351, 5.1] Federally Enforceable Through Title V Permit

9. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Duration of start-up 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

11. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

13. 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. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. 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

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

17. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

22. 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

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

24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2, 4306, 6.2, and 4351, 6.2] Federally Enforceable Through Title V Permit

26. The fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2, 4306, 6.2, and 4351, 6.2] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4351, 5.7] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit
31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches at any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

36. 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

37. 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, 4306, 6.1, and 4351, 6.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301, 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

39. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. Formerly S-1143-90.
PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-885, ‘-886, ‘-891, and ‘-892, or to S-1131-598, ‘-629, ‘-630, ‘-638, ‘-641, ‘-650, ‘-651, and ‘-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 311.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in gas processed shall not exceed 30.7% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC content shall be tested annually using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation, and shall consist of sampling of at least one well per producing zone. 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 analyzed by CARB Method 422. [District Rule 4401, section 6.3.2 and District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit accurate fugitive component counts 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

7. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

8. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

9. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

10. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

11. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] 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. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.014 lb-PM10/MMBtu or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generators shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

9. Each fuel source shall be tested quarterly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which quarterly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rule 2201 and 1081] Federally Enforceable Through Title V Permit

17. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

20. Source testing to measure 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, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD performed in the laboratory, fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

26. Permittee shall maintain daily records of fuel gas, the sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. Records shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [District Rules 2201, 2520, and 4320] Federally Enforceable Through Title V Permit

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

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

PERMIT UNIT: S-1131-917-9

EXPIRATION DATE: 02/28/2007

SECTION: 28  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 141 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District NSR Rule] Federally Enforceable Through Title V Permit

4. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.2.4] Federally Enforceable Through Title V Permit

5. Total number of component leaks shall not exceed the number specified in Rule 4401 at any one time. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rule 1081 and 4401] Federally Enforceable Through Title V Permit

7. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

9. Operator shall repair each leak within 15 days of detection. The APCO may grant a 10 day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

10. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District NSR Rule] Federally Enforceable Through Title V Permit

12. VOC emission rate shall not exceed 212.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Formerly permit number S-1133-27-8 and S-1109-688-0.
San Joaquin Valley
Air Pollution Control District

SECTION: 25  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S A-1 & A-2) SERVING 168 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOUR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE A LEASE)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District NSR Rule] Federally Enforceable Through Title V Permit
4. Total number of component leaks shall not exceed the number specified in Rule 4401 at any one time. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit
5. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rule 1081 and 4401] Federally Enforceable Through Title V Permit
6. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit
7. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
8. Operator shall repair each leak within 15 days of detection. The APCO may grant a 10 day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit
10. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 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.
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC emission rate shall not exceed 203.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Formerly permit numbers S-1133-31-8 and S-1109-691-0.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-941-12
EXPIRATION DATE: 02/28/2007

SECTION: 25  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT EMISSIONS UNIT: 27.5 MMBTU/HR THERMOTICS VAPOR CONTROL/NATURAL GAS-FIRED STEAM GENERATOR #29 WITH FLUE GAS RECIRCULATION AND AMETEK THERMOX O2 CONTROLLER (LEASE FEE A) (GROUP II)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District NSR Rule] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Emission rates for this unit shall not exceed any of the following: PM-10: 0.093 lb/MMBTU, SOx (as SO2): 0.184 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.007 lb/MMBTU, or CO: 0.033 lb/MMBTU or 45 ppmvd @3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

7. Compliance with the sulfur emissions limit (as SO2) 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 4301] Federally Enforceable Through Title V Permit

8. Fuel h/v for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

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

14. 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

15. 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

16. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District NSR Rule and 4305] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

18. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 5 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Formerly permit number S-1133-1-15 and S-1109-671-0.

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

SECTION: 25  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR O-PAR GAS-FIRED STEAM GENERATOR #31, WITH AMETEK
THERMOX O2 CONTROLLER - LEASE FEES A

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District NSR Rule] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. This steam generator shall operate only as a replacement standby unit for units S-1131-941. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Annual fuel use shall not exceed 90 billion Btu. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Permits shall install and maintain a non-resettable, totaling mass or volumetric fuel flow meter. 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. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. Permittee shall tune the unit at least once each calendar year in which it operates in accordance with the procedure in Rule 4304. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. Permittee shall maintain records of monthly and annual fuel consumption and shall make such records readily available for District inspection upon request for a period of five years. [District Rule 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

11. Emission rates for this unit shall not exceed any of the following: PM-10: 0.075 lb/MMBTU, SOx (as SO2): 0.081 lb/MMBTU, NOx (as NO2): 0.117 lb/MMBTU, VOC: 0.067 lb/MMBTU, or CO: 0.033 lb/MMBTU. [District NSR Rule, Rules 4201, 3.1; 4301, 5.2.1, 5.2.3, 4305, 4351, and 4801] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. 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

13. Compliance with the sulfur emissions limit (as SO2) may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

14. 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; or 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

15. Fuel hhh for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

16. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. 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

18. 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

19. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

21. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Formerly permit number S-1133-21-11 and S-1109-682-0.

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

PERMIT UNIT: S-1131-944-8
EXPIRATION DATE: 02/28/2007

SECTION: 06 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S B-1 & B-2) SERVING 71 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE B LEASE)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District NSR Rule] Federally Enforceable Through Title V Permit

4. Total number of component leaks shall not exceed the number specified in Rule 4401 at any one time. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

5. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rule 1081 and 4401] Federally Enforceable Through Title V Permit

6. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

7. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

8. Operator shall repair each leak within 15 days of detection. The APCO may grant a 10 day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

9. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

10. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 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.
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC emission rate shall not exceed 106.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Formerly permit number S-1133-30-6 and S-1109-690-0.
San Joaquin Valley
Air Pollution Control District

SECTION: 30     TOWNSHIP: 28S    RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S C-1, C-2 & C-3) SERVING 95 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE C LEASE)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '-629', '-630', '-638', '-641', '-650', '-651' and '-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District NSR Rule] Federally Enforceable Through Title V Permit

4. Total number of component leaks shall not exceed the number specified in Rule 4401 at any one time. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

5. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rule 1081 and 4401] Federally Enforceable Through Title V Permit

6. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

7. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

8. Operator shall repair each leak within 15 days of detection. The APCO may grant a 10 day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

9. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit

10. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 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.
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC emission rate shall not exceed 142.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Formerly permit number S-1133-29-7 and S-1109-689-0.
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]

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]


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]

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]

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 6.2.1.5 of Rule 4623 are met. [District Rule 4623]

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]

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]

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]

10. Formerly permit number S-1133-42-2 and S-1109-702-0.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-962-3     EXPIRATION DATE: 02/28/2007
SECTION: NE30  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
210,000 GALLON (5,000 BBL) FIXED ROOF WATER STORAGE TANK, KERN RIVER "FEE C" LEASE.

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]

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]


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]

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]

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]

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]

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]

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]

10. Formerly permit number S-1133-43-1 and S-1109-703-0.

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]

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]


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]

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]

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]

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]

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]

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]

10. Formerly permit number S-1133-44-1 and S-1109-704-0.

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

PERMIT UNIT: S-1131-964-3
EXPIRATION DATE: 02/28/2007
SECTION: NE30  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
21,000 GALLON (500 BBL) FIXED ROOF SKIM TANK, KERN RIVER "FEE C" LEASE.

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]

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]


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]

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]

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]

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]

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]

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]

10. Formerly permit number S-1133-45-2 and S-1109-705-0.

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

PERMIT UNIT: S-1131-966-12
EXPIRATION DATE: 02/28/2007
SECTION: 30  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT EMISSIONS UNIT: 27.5 MMBTU/HR THERMOTICS VAPOR CONTROL/NATURAL GAS-FIRED STEAM GENERATOR #24 WITH FLUE GAS RECIRCULATION AMETEK THERMOX O2 CONTROLLER (FEE C LEASE)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District NSR Rule] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Emission rates for this unit shall not exceed any of the following: PM-10: 0.070 lb/MMBTU, SOx (as SO2): 0.184 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.007 lb/MMBTU, or CO: 0.033 lb/MMBTU or 45 ppmvd @3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

7. Compliance with the sulfur emissions limit (as SO2) 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 4301] Federally Enforceable Through Title V Permit

8. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

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

14. 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

15. 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

16. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District NSR Rule and 4305] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

18. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Formerly permit number S-1133-3-14 and S-1109-673-0.

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

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Emission rates shall not exceed: PM10; 0.009 lb/MMBtu, SOx (as SO2); 0.005 lb/MMBtu, NOx (as NO2); 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.003 lb/MMBtu, or CO; 0.002 lb/MMBtu or 2.7 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

5. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

16. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of fuel type and quantity for each day of operation, in the format approved by the District. [District NSR Rule] Federally Enforceable Through Title V Permit

19. 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 noncertified fuel. [District Rules 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1, 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

21. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

22. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit 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

23. 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; or 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
24. 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

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

26. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. Formerly S-1109-2.
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-987-12

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SE19  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (R-3, DIS# 27474-81); LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1132-8, S-1132-90, S-1131-885, S-1131-903, S-1131-909 and S-1131-1040. The combined fuel sulfur content from these units shall not exceed 5.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-987-12  Jan 11 2012 9:44AM - ROYARKM  : Joint inspection NOT required
Southern Regional Office  •  34946 Flyover Court  •  Bakersfield, CA 93308  •  (661) 392-5500  •  Fax (661) 392-5585
5. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed any of the following limits: 0.044 lb-PM10/MMBtu or 0.065 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 31 ppmvd CO @ 3% O2 or 0.023 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

8. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.884 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9.855 lb-NOx/year, 0.084 lb-CO/MMBtu, 34.5 lb-CO/day and 12,593 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. The fuel combusted in this unit shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] 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. [District Rules 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rule 2201 and 1081] Federally Enforceable Through Title V Permit

20. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

21. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur), ASTM D1072, D3246 or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC-FPTD/TCD performed in the laboratory, fuel hvv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

CONDITIONS CONTINUE ON NEXT PAGE
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of 
three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. 
[District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

29. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates 
of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat 
value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of 
systems providing gas for incineration. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable 
Through Title V Permit

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

31. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District 
Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally 
Enforceable Through Title V Permit

32. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used 
to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 
72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District 
Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. Formerly S-1143-90.

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

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records 
shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District 
inspection upon request. [District Rules 1070 and Rule 4320]
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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Unit shall be exclusively gas/casing gas-fired and have no provisions for oil firing. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.029 lb/MMBtu, SOx (as SO2); 0.052 lb/MMBtu, NOx (as NO2); 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.005 lb/MMBtu, or CO; 30.7 ppmv @ 3% O2. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, or the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/sec, 0.1 grain/sec 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

34. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-97.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-993-8

SECTION: NE29   TOWNSHIP: 28S   RANGE: 28E

EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH OXYGEN
CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (PRICWELL, P-3, DIS# 28773-85)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V
   Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District NSR Rule]
   Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule
   1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.0063 lb/MMBtu, SOx (as SO2); 0.0243 lb/MMBtu, NOx (as NO2); 0.036
   lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.0042 lb/MMBtu, or CO; 18.7 ppmv @ 3% O2. [District Rules 2201, 4305
   and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas
   recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district
   approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and
    CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any
    corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility
    for a period of no less than five years and shall be made readily available for district inspection upon request. [District
    Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 190 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

34. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-104.
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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Unit shall be exclusively gas/casing gas-fired and have no provisions for oil firing. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.045 lb/MMBtu, SOx (as SO2); 0.062 lb/MMBtu, NOx (as NO2); 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.005 lb/MMBtu, or CO; 26.7 ppmv @ 3% O2. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBTu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBTu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rules 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/scf, 0.1 grain/scf 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBTu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-108.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-995-12
EXPIRATION DATE: 02/28/2007
SECTION: 03  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 50 STEAM DRIVE WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District NSR Rule] Federally Enforceable Through Title V Permit

5. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District NSR Rule] Federally Enforceable Through Title V Permit

7. VOC emission rate shall not exceed 52.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL KERN COUNTY, CA
10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

13. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations. provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

15. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

17. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

20. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

21. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401 5.8.6] Federally Enforceable Through Title V Permit

22. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

23. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

24. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component, or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

26. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

27. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

28. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

30. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit
31. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

32. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

33. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

34. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

35. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

36. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

37. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

38. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

39. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

40. 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. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

41. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

42. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

43. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit
44. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

45. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 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

46. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401 6.3.2] Federally Enforceable Through Title V Permit

47. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit

48. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.5] Federally Enforceable Through Title V Permit

49. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

50. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

51. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] 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.
52. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit

53. Formerly permit number S-1109-110-1.
SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

PERMIT UNIT: S-1131-996-12
EXPIRATION DATE: 02/28/2007
SECTION: 02  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 25 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOUR CONTROLLED TANKS AND EXEMPT EQUIPMENT (KCL 2)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationery source with closed casing vents that direct fluids to uncontrollable storage tanks and a current listing of all permit numbers of front line equipment receiving produced fluids from the wells, shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District NSR Rule] Federally Enforceable Through Title V Permit

5. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.2.4] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

7. VOC emission rate shall not exceed 37.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

8. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

9. Implementation of the proposed abandonment of the well casing collection system shall conform to a District-approved well vent abandonment plan. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

11. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

13. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

14. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

15. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

16. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

17. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

19. 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 Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

20. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit
21. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

22. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

23. 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

24. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

25. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

26. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

27. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

28. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

29. 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 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

30. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

31. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.8] Federally Enforceable Through Title V Permit

32. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
33. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

34. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

35. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

36. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

37. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

38. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

39. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

40. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

41. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

42. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells 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

43. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

44. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

45. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit
46. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

47. 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

48. 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

49. 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

50. 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

51. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking component found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. The date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

52. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

53. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] 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.
54. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit

55. Formerly permit number S-1109-111-0.
San Joaquin Valley
Air Pollution Control District

SECTION: SE13    TOWNSHIP: 28S    RANGE: 27E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS NATURAL GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN OXYGEN CONTROLLER/ANALYZER (ANGUS 2, DIS# 4509-81)

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 grains/dscfm in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Emissions from the steam generator shall not exceed any of the following limits: 0.075 lb-SOx/MMBtu, 0.045 lb-PM10/MMBtu, or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 27 ppmvd CO @ 3% O2 or 0.02 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
6. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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
8. 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 Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 30.0 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

12. 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

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

14. 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

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

16. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
21. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

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

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of gross heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 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.
32. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. 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

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

35. Formerly S-1109-118.

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

PERMIT UNIT: S-1131-998-8
EXPIRATION DATE: 02/28/2007

SECTION: SW34  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/OXYGEN
CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (HOPCO, H-2, DIS# 39454-87)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.007 lb/MMBtu; SOx (as SO2): 0.030 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2, and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2, 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-121.
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-999-11

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
Bakersfield, CA 93302

LOCATION:
HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SE19 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MM BTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL GLE MAGNA-FLAME (OR DISTRICT APPROVED EQUIVALENT), OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (RAMBLER, R-7, DIS# 12466-82): LIMIT FUEL SULFUR CONTENT TO 5 GR-S/100 DSCF FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. The operator shall fire the unit only on natural gas and gas from the following permit units: PTO S-1131-598, '-885, '-932, '-958, '-996, '-1007, and '-1008. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 5.0 gr S/100 scf. [District Rules 2201, 4406, and 4320] Federally Enforceable Through Title V Permit

4. Steam generator shall be equipped with operational gas volume flowmeters that measures each the fuel gas and the vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

5. Emission rates shall not exceed any of the following limits: 0.007 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-999-11 Jan 11 2012 2:44Am - RICKARD - JRT Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 25 ppmvd CO @ 3% O2 or 0.0185 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 21.0 lb-CO/day, and 7,665 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Duration of startup or shutdown shall not exceed two hours each per occurrence. The emissions control system shall be in operation and emissions shall be minimized insofar as technologically possible during startup and shutdown. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

10. Permittee shall maintain records of duration of each start-up and shutdown. Startup is defined as the period of time to reach operating temperature and pressure once fuel is supplied, including the time required by the emission control system to reach full operation. Shutdown is defined as the period of time taken from operating temperature and pressure until the fuel supply is completely turned off. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

11. When incinerating vapor recovery gas in this unit, permittee shall measure and record the sulfur content and higher heating value of the vapor recovery gas at least monthly using the test methods referenced in this permit. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

12. When pipeline quality natural gas is used to fuel this unit, 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 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 2520, 9.3.2 and Rule 4320, 5.7.6] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320, 5.7.6]

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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

19. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

20. Source testing to measure 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 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

22. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by the District personnel. Sample collection shall be by ARB certified testing laboratory. 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

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Permittee shall submit an analysis showing the fuel sulfur content (as H2S) by either EPA Method 11, 15, or ASTM D6228; total fuel sulfur content by either ASTM D1072, D3246, D6228 or double GC with mercaptans; or conduct a source test for SOx at least once 12 months. [District Rule 4320, 5.7.6]

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, PM10 - EPA Method 5, SOx (lb/MMBtu) - EPA Method 6C or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H2S) - EPA Method 11 or 15 or ASTM D6228 and (as total sulfur) - ASTM D1072, D3246, or D6228, or grab sample analysis by double GC for H2S and mercaptans or GC FPTD/TCD, performed in the laboratory, fuel hv (MMBtu) - ASTM D 1826 or D 1945 (as methane) in conjunction with ASTM D 3588. [District Rules 1081, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
27. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

30. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the monthly NOx and CO emissions limit determinations, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201, 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

34. Formerly S-1109-127.

35. This Authority to Construct shall be implemented according to the date proposed in the District approved Rule 4320 Emission Control Plan. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit

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

37. 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]
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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.0065 lb/MMBtu; SOx (as SO2): 0.0083 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.0041 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL KERN COUNTY, CA
S-1131-1000-8 8-28-2013 9:44AM - RICKARD
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 19,1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 50 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-128.

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

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC quality natural gas and/or scrubbed TEOR gas from Sulfato-Check unit of S-1131-1040 shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Compliance with SOx emission rate shall be demonstrated by daily emission calculations using heating values & amounts of natural gas/TEOR gas burned in this unit and the outlet H2S concentration from Sulfato Check unit of S-1131-1040. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed: PM10: 0.006 lb/MMBtu; SOx (as SO2): 0.008 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.041 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

8. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least once a month in the calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

14. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

19. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

23. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

25. 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 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
26. 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

27. 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; or 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

28. 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

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

30. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

32. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

35. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] 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.
36. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

37. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Formerly S-1109-129.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1002-8
EXPIRATION DATE: 02/28/2007
SECTION: NE29  TOWNSHIP: 26S  RANGE: 28E
EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO STEAM GENERATOR WITH NORTH AMERICAN STAGED COMBUSTION
AND FLUE GAS RECIRCULATION SYSTEM

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V
   Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month
   period that the unit is operated (or as approved by the District). [District NSR Rule] Federally Enforceable Through
   Title V Permit

5. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule
   1081] Federally Enforceable Through Title V Permit

6. Emission factors for this unit shall not exceed any of the following: PM-10: 0.006 lb/MMBTU, SOx (as SO2): 0.005
   lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.003 lb/MMBTU, or CO: 0.002
   lb/MMBTU or 3 ppmvd @3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V
   Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district
   approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and
   CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any
   corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility
   for a period of no less than five years and shall be made readily available for district inspection upon request. [District
   Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the
   permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission
   limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to
   exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the
   first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. Compliance source testing for NOx and CO shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

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

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Compliance with SOx emission limits shall be demonstrated by natural gas sulfur contents analysis at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

22. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
34. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. Formerly permit number S-1109-135-14.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1003-8
EXPIRATION DATE: 02/28/2007

SECTION: SW34 TOWNSHIP: 28S RANGE: 26E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/ OXYGEN
CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (HOPCO, H-3, DIS# 39455-87)

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 Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.007 lb/MMBtu; SOx (as SO2): 0.030 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2, and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 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
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-136.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1004-8
EXPIRATION DATE: 02/28/2007
SECTION: NE29  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/ OXYGEN
CONTROLLER/ANALYZER, FLUE GAS RECIRULATION (PRICEWELL, H-4)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for
canges specified in conditions below. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V
Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District NSR Rule]
Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule
1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.007 lb/MBtu; SOx (as SO2): 0.030 lb/MBtu; NOx (as NO2): 0.036
lb/MBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305
and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas
recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305]
Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district
approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305]
Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and
CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any
corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility
for a period of no less than five years and shall be made readily available for district inspection upon request. [District
Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. If the unit is fired on non-certified 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Formerly S-1109-137.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1007-8
SECTION: 20  TOWNSHIP: 28S  RANGE: 28E

EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 170 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM (MARCO A&B LEASE) (WILMAR LEASE). THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 170 STEAM ENHANCED WELLS

PERMIT UNIT REQUIREMENTS

1. Volatile Organic Compound (VOC) emissions shall not exceed 292.6 lb VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

3. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

4. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

5. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

6. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by District Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

7. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit


9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The operator shall maintain monitoring 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

11. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
12. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

15. Formerly permit number S-1109-172-5.

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

PERMIT UNIT: S-1131-1008-8
EXPIRATION DATE: 02/28/2007

SECTION: 19  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 118 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM INCLUDING GAS/LIQUID SEPARATORS, HEAT EXCHANGER, VAPOR COMPRESSOR, CONDENSERS, AND OPTIONAL H2S SCRUBBING SYSTEM FOR CORROSION CONTROL WITH NON-CONDENSIBLE VAPOR PIPED TO SG’S S-1131-987, -990, -999, AND -1000, AND/OR FLARE S-1131-1085, OR SERVED BY VAPOR-CONTROLLED STATION 36 TANKS (RAMBLER LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vents shall include provisions for collection and incineration of vapor in District-approved well vent vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Final vapor condenser shall be equipped with an operational exhaust gas temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Condensate shall discharge to existing dehydration tanks only. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

5. VOC emissions associated with the components added for the installation of sulfur scrubber vessel shall be less than 0.50 lb/day. [District Rule 2201]

6. To verify compliance with the VOC emissions limit established for the sulfur scrubber vessel installation, permittee shall maintain an accurate count and estimate of emissions for the added components in gas/light liquid service, in accordance with CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. [District Rule 2201]

7. Volatile Organic Compound (VOC) emissions shall not exceed 85.2 lb VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit

8. To verify compliance with the VOC emissions limit of this permit, permittee shall maintain an accurate count and estimate of emissions of the components in gas/light liquid service, in accordance with CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv (non-leaking) and > 10,000 ppmv (leaking). Permittee shall update such records when new components are approved and installed. [District Rule 2201]

9. At least once per year, components in gas/light liquid service shall be inspected for leaks, visually and in accordance with EPA Method 21, with an instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 2201]

10. Upon detection of a leak greater than 10,000 ppmv or 3 drops per minute, facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rules 2201 and 4401]
11. Any component leak greater than 10,000 ppmv or 3 drops per minute shall be repaired to a leak-free condition within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rules 2201 and 4401]

12. Operator shall maintain an inspection log containing the following: type of component leaking; date and method of detection; date and type of repair made and the emission level after leak is repaired. [District Rule 2201]

13. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

14. Components of well vent vapor control system shall be maintained in good working condition at all times, except for the following: any portion of the well vent vapor control system undergoing repair need not be in good condition provided the impacted well vents are closed and such portion of the vapor control system is isolated from the rest of the system. [District Rule 4401] Federally Enforceable Through Title V Permit

15. Well casing vents or downstream valves may be closed if the well is idle or if the well is producing to tanks S-1131-598, -629, -630, -638, -641, -650, -651, and 1097 that are vented to an approved operational vapor collection and control system achieving 99% control. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

16. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of leaks allowed by District Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

17. Permittee shall maintain a current listing of all wells connected to the well vent vapor control system including whether the well vent or a downstream valve is currently closed or open. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

18. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

19. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

20. 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

21. The operator shall maintain monitoring 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

22. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by ARB certified contractors during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are burned in fuel burning equipment or in a smokeless open flare and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

23. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

24. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
25. Formerly permit number S-1109-173-7.
PERMIT UNIT: S-1131-1010-8
SECTION: 29  TOWNSHIP: 28S  RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION WITH UP TO 37 STEAM ENHANCED OIL PRODUCTION WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (PARKER LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system, shall not exceed the number of leaks allowed by District Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Volatile organic compound (VOC) emission rate shall not exceed 63.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit


9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The operator shall maintain monitoring 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

11. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant an additional 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have been taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. 
   [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

15. Formerly S-1109-175-3.

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

PERMIT UNIT: S-1131-1011-8
SECTION: 29  TOWNSHIP: 28S  RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 42 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (POTOMAC LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Volatile organic compound (VOC) emission rate shall not exceed 72.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit


9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The operator shall maintain monitoring 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

11. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

12. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable.  
   [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in 
   accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V 
   Permit

15. Formerly S-1109-176-5.

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

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by District Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Volatile organic compound (VOC) emission rate shall not exceed 216.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit


9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The operator shall maintain monitoring 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

11. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

15. Formerly S-1109-184-4.

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

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with District Rule 4401 (as amended January 15, 1998). [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule & 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by District Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Volatile organic compound (VOC) emission rate shall not exceed 125.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit


9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The operator shall maintain monitoring 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

11. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

15. Formerly permit number S-1109-185-6.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1014-11
EXPIRATION DATE: 02/28/2007

SECTION: 28 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 40 STEAM ENHANCED WELLS (STAUFFER LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651 and '-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Volatile organic compound (VOC) emission rate shall not exceed 68.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

9. The operator shall maintain monitoring 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

10. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

11. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

12. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

14. Formerly S-1109-201-1.

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

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rules 4305 and 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 4305 and 4306] Federally Enforceable Through Title V Permit

4. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month period that the unit is operated (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

5. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission factors for this unit shall not exceed any of the following: PM-10: 0.045 lb/MMBTU, SOx (as SO2): 0.0673 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.006 lb/MMBTU, or CO: 0.020 lb/MMBTU or 27 ppmvd @3% O2. [District NSR Rule, Rules 4305, and 4351] Federally Enforceable Through Title V Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

11. Compliance source testing for fuel gas sulfur content shall be conducted at least once every 12 months (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted within 60 days of startup, and not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

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

17. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. 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 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

23. 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
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. Formerly S-1109-221-15.

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

1. Operation shall include no more than 31 steam drive crude oil production wells with closed casing vents and 12 cyclic crude oil production wells with closed casing vents [District NSR Rule] Federally Enforceable Through Title V Permit

2. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '-1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by an Authority to Construct. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of allowable leaks required by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Steam-enhanced production wells with closed well casing vents shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of the closed casing vent wells. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Permittee shall maintain a current and accurate list of all steam-enhanced wells with closed casing vents authorized by this permit and shall update the list whenever a well is added, replaced, or deleted. Upon request, the current list of wells authorized by this permit shall be submitted to the District's Compliance Division. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Permittee shall retain copies of all previous lists of steam-enhanced wells with closed casing vents authorized by this permit and shall make such lists readily available for District inspection upon request for a period of at least five (5) years. [District NSR Rule] Federally Enforceable Through Title V Permit

9. Total number of component leaks shall not exceed the number specified in Rule 4401. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

10. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rules 1081 and 4401] Federally Enforceable Through Title V Permit

11. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [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.
12. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Flanges shall be inspected with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Valves shall be inspected with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit

15. Polished rod stuffing boxes and all other components shall be inspected at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Leaks shall be inspected and repaired as specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

17. Volatile organic compound (VOC) emission rate shall not exceed 88.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

19. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

20. 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

21. The operator shall maintain monitoring 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

22. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

23. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

24. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by ARB certified contractors during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are burned in fuel burning equipment or in a smokeless open flare and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

25. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
26. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable.  
   [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

27. Formerly permit number S-1109-222-5.
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 2070] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4307] 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 4307 and all other applicable District regulations. [District Rule 4307] Federally Enforceable Through Title V Permit

4. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month period that the unit is operated (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

6. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

7. Emission factors for this unit shall not exceed any of the following: PM-10: 0.045 lb/MMBTU, SOx (as SO2): 0.0328 lb/MMBTU, NOx (as NO2): 0.117 lb/MMBTU, VOC: 0.014 lb/MMBTU, or CO: 0.036 lb/MMBTU. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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

9. Copies of all test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. 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

11. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions. [District Rule 4201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. Emissions 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] Federally Enforceable Through Title V Permit

13. 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

14. 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; or 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

15. 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

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

17. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Source testing shall be performed for NOx (ppmv) according to EPA Method 7E (or ARB Method 100) and EPA Method 10 (or ARB Method 100) for CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. In years that the equipment is operated, NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory and shall be witnessed or authorized by the District. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vested to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Volatile organic compound (VOC) emission rate shall not exceed 66.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Permittee shall maintain, for a period of at least five years, accurate records of well casing fugitive component counts and well casing vent piping fugitive component counts and leak screening values, and calculate fugitive emissions using District-approved emission factors. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

7. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

8. 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

9. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 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.
10. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), formerly District Rule 465.1, excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

16. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

17. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

18. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

19. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit
20. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

21. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

22. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

24. 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 Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

25. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio- visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

26. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

27. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

28. 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

29. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

30. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 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.
31. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

32. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

33. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

34. 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 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

35. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

36. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

37. 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

38. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

39. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

40. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

41. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

42. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

44. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

45. 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. [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. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

47. 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. [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 testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

49. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

50. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit

51. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

52. 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

53. VOC content shall be analyzed by using the latest revision of ASTM Method E169, 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

54. 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
55. 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

56. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found; date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

57. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

58. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

59. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit

60. Formerly S-1109-335-4.

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

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Volatile organic compound (VOC) emission rate shall not exceed 66.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Permittee shall maintain, for a period of at least five years, accurate records of well casing fugitive component counts and well casing vent piping fugitive component counts and leak screening values, and calculate fugitive emissions using District-approved emission factors. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

7. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

8. 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

9. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 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.
10. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

11. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). 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 SJVUAPCD Rule 4401 (Amended January 15, 1998), formerly District Rule 465.1, excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

17. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

18. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

19. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

20. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
21. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

22. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

23. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

25. 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 Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

26. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio- visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

27. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

28. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

29. 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

30. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

31. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit
32. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

33. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

34. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

35. 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 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

36. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

37. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

38. 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

39. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

40. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

41. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

42. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

43. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

45. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

46. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit
47. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

48. 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. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

49. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

50. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

51. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit

52. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

53. 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

54. 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

55. 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.
56. 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

57. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

58. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

59. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

60. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit

61. Formerly S-1109-336-3.

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

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

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, -629, -630, -638, -641, -650, -651 and -1097, that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 82.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain with the permit accurate fugitive component counts. Fugitive VOC emissions shall be 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

5. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 14, 2006). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The annual inspection requirements of Section 5.8.1 through Section 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt %) or less, as determined by the test methods in Section 6.3.5 of Rule 4401. [District Rule 4401 4.9] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirement: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rules 2201 and 4401 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.
9. An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following conditions exist at the facility or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates that one or more of the following conditions exist at the facility: Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

10. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following conditions exist at the facility or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility: existence of a component with any of the following: a major liquid leak, a gas leak greater than 50,000 ppmv, a minor liquid leak or a minor gas leak in excess of the allowable number of leaks allowed by Table 3 of Rule 4401, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv in excess of the allowable number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (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 Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401 5.8.6] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

31. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

32. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] 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.
33. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

34. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

35. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

36. 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

37. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells 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

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

41. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

42. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit

43. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit
44. 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

45. 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

46. 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

47. 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

48. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

49. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4401, 6.1] Federally Enforceable Through Title V Permit

50. Formerly permit number S-1109-356-1.
San Joaquin Valley
Air Pollution Control District

SECTION: 34  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 34 STEAM-ENHANCED OIL PRODUCTION WELLS (SEC 34 N)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District NSR Rule] Federally Enforceable Through Title V Permit
4. Total number of component leaks shall not exceed the number specified in Rule 4401 at any one time. A leak is defined as a reading in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit
5. Well casings and casing vents shall be screened and inspected for leaks at least annually. Any leak shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4401. [District Rule 1081 and 4401] Federally Enforceable Through Title V Permit
6. Leak inspection shall be performed using a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Reference Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit
7. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
8. Operator shall repair each leak within 15 days of detection. The APCO may grant a 10 day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.2.3] Federally Enforceable Through Title V Permit
10. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.3.2 and 4401, 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.
11. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

12. VOC emission rate shall not exceed 51.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Formerly permit number S-1109-357-1.
PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all applicable requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

2. Emissions from each closed casing vent well covered by this permit shall not exceed 0.0216 lb VOC/hr-well for components and 0.0194 lb VOC/hr-well for polished rod stuffing boxes. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to tanks vented to a District approved vapor collection and control system, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit

5. Formerly permit number S-1109-361-1.

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

PERMIT UNIT: S-1131-1037-8
EXPIRATION DATE: 02/28/2007

SECTION: NW10  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
249.0 MMBTU/HR NOMINAL RATING, 20 MW NOMINAL RATING GENERAL ELECTRIC GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH SCR, AMMONIA STORAGE AND DISTRIBUTION SYSTEM, CO CATALYTIC CONVERTER AND CEM SYSTEM FOR NOX, CO AND O2

PERMIT UNIT REQUIREMENTS

1. Cogeneration system shall include General Electric model LM-2500PE gas turbine, generator set rated at 22.89 MW, turbine combustor and compressor water injection systems, SCR, CO catalyst, and CEM's for NOx, CO, & O2. [District NSR Rule] Federally Enforceable Through Title V Permit

2. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Ammonia injection rate shall be controlled to maintain ammonia breakthrough to less than 20 ppmv. [District Rule 4102]

4. If water injection, SCR, or CO catalyst is inoperative, turbine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

5. All turbine exhaust shall flow through both catalyst beds. [District NSR Rule] Federally Enforceable Through Title V Permit

6. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [District Rule 1080 and 40 CFR 60.334 (b)] Federally Enforceable Through Title V Permit

7. Audits of monitors shall be conducted annually by independent testing lab in accordance with EPA guidelines, witnessed or authorized by the District, and reports shall be submitted to the District within 60 days of audit. [District Rule 1080] Federally Enforceable Through Title V Permit

8. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 4001] Federally Enforceable Through Title V Permit

9. Except days with periods of startup/shutdown, emission rates shall not exceed any of the following: PM10: 77.7 lb/day, SOx (as SO2): 29.9 lb/day, NOx (as NO2): 110.0 lb/day, VOC: 239.0 lb/day, or CO: 169.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBTU or 5 ppmvd @ 15% O2, or CO: 12 ppmvd @ 15% O2. [District NSR Rule & Rule 4703] Federally Enforceable Through Title V Permit

11. Except during periods of startup/shutdown, emission rates shall not exceed any of the following: PM10: 0.013 lb/MMBTU, SOx (as SO2): 0.005 lb/MMBTU, or VOC: 0.040 lb/MMBTU. [District NSR Rule & Rule 4703] Federally Enforceable Through Title V Permit

12. NOx emission rate (one hour average) shall not exceed the NSPS standard of 155 ppmv dry @ 15% O2. [40 CFR 60.332(a) and District Rule 4001] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, and NSPS emission rate on a four hour average. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Except during periods of gas turbine engine startup/shutdown, water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Except during periods of gas turbine engine startup/shutdown, inlet gas temperature to both catalyst beds shall be maintained within the range as recommended by catalyst manufacturer. [District NSR Rule] Federally Enforceable Through Title V Permit

16. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Compliance source testing shall be conducted under conditions representative of normal operation. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Compliance source testing for NOx, CO, VOC, NH3 and fuel gas sulfur content shall be conducted at least once every 12 months. [District Rules 1081 and 4703] Federally Enforceable Through Title V Permit

19. Gas turbine engine exhaust may be diverted to bypass stack during cold engine startup. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [District Rule 1100] Federally Enforceable Through Title V Permit

21. Permittee shall maintain accurate records of ammonia consumption and all maintenance activities related to this unit. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. 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

23. Reduced load period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.16] Federally Enforceable Through Title V Permit

24. 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 Rule 4703, 3.21] Federally Enforceable Through Title V Permit

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

26. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D4084, D5504, D6228, Gas Processors Association Standard 2377 or double GC for H2S and mercaptans. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit

27. 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(h)(3)] Federally Enforceable Through Title V Permit

28. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

29. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.335(a), (b)(7) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

31. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

32. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM’s that have been installed pursuant to District Rule 1080, and emission measurements. [District Rule 1080; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

33. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(j), (j)(5) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

34. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit

35. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, and the exhaust gas NOx concentration at 15% O2 on a dry basis. [40 CFR 60.334(b) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

36. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

37. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)(3)(D)] Federally Enforceable Through Title V Permit

38. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

39. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

40. Operators of CEM’s installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

41. Formerly S-1109-362-18.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] 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 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit

4. Either conventional or pilotless fuel nozzles may be used. [District Rule 2010] Federally Enforceable Through Title V Permit

5. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

6. If water injection is inoperative, turbine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Turbine shall not burn more than 1.33 MMscf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit

8. All turbine exhaust shall flow to heat recovery steam generator. [District NSR Rule] Federally Enforceable Through Title V Permit

9. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Audits of monitors shall be conducted at least once every 12 months by independent testing lab in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to District within 60 days of audit. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Unit shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [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.
13. Compliance source testing for NOx, CO, fuel gas sulfur content, and demonstrated percent efficiency of gas turbine engine shall be conducted at least once every 12 months. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit

14. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

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

16. Except during periods of gas turbine engine startup/shutdown, gas turbine water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 17.9 lb/day, SOx (as SO2): 8.4 lb/day, NOx (as NO2): 180.2 lb/day, VOC: 48.9 lb/day, or CO: 125.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: PM10: 0.0128 lb/MMBTU, SOx (as SO2): 0.006 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or 38 ppmvd @ 15% O2, VOC: 0.035 lb/MMBTU, or CO: 40 ppmvd @ 15% O2. [District NSR Rule & Rule 4703] Federally Enforceable Through Title V Permit

20. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]

21. NOx emission rate (one hour average) shall not exceed the NSPS standard of 206 ppmvd @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit

22. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit

23. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District NSR Rule] Federally Enforceable Through Title V Permit

24. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

25. If monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrates, etc.) or, if such data is not available, for the four days of operation preceding the breakdown. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of quantity of fuel used per day, all maintenance activities related to this unit, and date and time of fuel nozzle replacement, and type of fuel nozzle installed. [District NSR Rule] Federally Enforceable Through Title V Permit

27. 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

28. Reduced load period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.16] Federally Enforceable Through Title V Permit
29. 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 Rule 4703, 3.21] Federally Enforceable Through Title V Permit

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

31. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

32. 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

33. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

34. 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

35. 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

36. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [Kern County Rule 108; District Rule 1080] Federally Enforceable Through Title V Permit

37. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rule 1080; 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit

38. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

39. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

40. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, and the exhaust gas NOx concentration at 15% O2 on a dry basis. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

41. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [Kern County Rule 108 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

42. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

44. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [Kern County Rule 108 and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

46. Formerly S-1109-373-15.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1039-9
EXPIRATION DATE: 02/28/2007
SECTION: NW10  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
DORMANT 58.2 MMBTU/HR (NOMINAL RATING), 4.0 MW ALLISON MODEL 501-KB5 GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH WATER INJECTION, HEAT RECOVERY STEAM GENERATOR, AND CEM SYSTEMS FOR NOX, CO, AND O2

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] 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 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit

4. Either conventional or pilotless fuel nozzles may be used. [District Rule 2010] Federally Enforceable Through Title V Permit

5. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

6. If water injection is inoperative, turbine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Turbine shall not burn more than 1.33 MMscf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit

8. All turbine exhaust shall flow to heat recovery steam generator. [District NSR Rule] Federally Enforceable Through Title V Permit

9. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Audits of monitors shall be conducted at least once every 12 months by independent testing lab in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to District within 60 days of audit. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Unit shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [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.
13. Compliance source testing for NOx, CO, fuel gas sulfur content, and demonstrated percent efficiency of gas turbine engine shall be conducted at least once every 12 months. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit

14. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

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

16. Except during periods of gas turbine engine startup/shutdown, gas turbine water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following: PM10: 17.9 lb/day, SOx (as SO2): 8.4 lb/day, NOx (as NO2): 180.2 lb/day, VOC: 48.9 lb/day, or CO: 125.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: PM10: 0.0128 lb/MMBTU, SOx (as SO2): 0.006 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or 38 ppmv @ 15% O2, VOC: 0.035 lb/MMBTU, or CO: 40 ppmv @ 15% O2. [District NSR Rule & Rule 4703] Federally Enforceable Through Title V Permit

20. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1]

21. NOx emission rate (one hour average) shall not exceed the NSPS standard of 206 ppmv @ 15% O2. [District Rule 4001] Federally Enforceable Through Title V Permit

22. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit

23. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District NSR Rule] Federally Enforceable Through Title V Permit

24. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions. [District NSR Rule] Federally Enforceable Through Title V Permit

25. If monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrates, etc.) or, if such data is not available, for the four days of operation preceding the breakdown. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of quantity of fuel used per day, all maintenance activities related to this unit, and date and time of fuel nozzle replacement, and type of fuel nozzle installed. [District NSR Rule] Federally Enforceable Through Title V Permit

27. 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

28. Reduced load period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.16] Federally Enforceable 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. 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 Rule 4703, 3.21] Federally Enforceable Through Title V Permit

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

31. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

32. 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

33. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

34. 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 60.333(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit

35. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.333(b),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

36. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [Kern County Rule 108; District Rule 1080] Federally Enforceable Through Title V Permit

37. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rule 1080; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit

38. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

39. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

40. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, and the exhaust gas NOx concentration at 15% O2 on a dry basis. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

41. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 69, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [Kern County Rule 108 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

42. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

44. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
45. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, date and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [Kern County Rule 108 and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

46. Formerly S-1109-374-15.
San Joaquin Valley
Air Pollution Control District

SECTION: SW21 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 35 STEAM ENHANCED WELLS (OJAI, MELWOOD AND SESAME LEASES)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and Rule 4401] Federally Enforceable Through Title V Permit

2. Well vent vapor collection and control system shall be operated, maintained, and repaired in accordance with Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 4401] Federally Enforceable Through Title V Permit

4. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, ‘629, ‘630, ‘638, ‘641, ‘650, ‘651 and ‘-1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. (Amended March 21, 2002). [District NSR Rule and Rule 4401] Federally Enforceable Through Title V Permit

5. Total number of leaks from the well vent vapor control system shall not exceed the number of leaks allowed by Rule 4401 at any one time. [District Rule 4401] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District NSR Rule] Federally Enforceable Through Title V Permit

7. Well vent vapor control system Volatile organic compound (VOC) fugitive emission rate shall not exceed 28.1 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

9. The operator shall maintain monitoring 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

10. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

11. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

12. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS

1. When vent line is open free water knockout vessel water stand vessel (V-190) and sand jet (V-200) vessel shall only vent to Mecca-Rambler casing vapor recovery system permit unit #S-1131-1008. [District NSR Rule] Federally Enforceable Through Title V Permit

2. When the vent line for this permit unit is closed, produced fluids shall only be introduced to vapor controlled tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Components and seals on this vessel shall be maintained gas tight as defined in Rule 4623 (amended 12/20/01). [District NSR Rule] Federally Enforceable Through Title V Permit

4. VOC emissions from this unit shall not exceed 3.5 lb/day (fugitive). [District NSR Rule] Federally Enforceable Through Title V Permit

5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended 12/20/01). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

8. The tank shall be inspected at least once each calendar month, except as follows. In the event no leaks are found for two consecutive months, the tank may be inspected once in three months. If a leak is subsequently found, monthly inspections will be resumed until no leaks are found for two consecutive months at which point inspections will again take place once every three months. In addition, repaired leaks will be reinspected within five calendar days after completion of the repair. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Pressure relief devices that are designed to relieve pressure in the event of a shutdown of the vapor recovery compressor will be checked within three days of a known or suspected pressure relief event to confirm gas-tight closure. The suspected pressure relief events that will trigger inspections are shutdowns of the vapor recovery system. When such an event occurs, the Varec hatches and devices and hinged, unbolted hatch covers on tanks where vapor recovery service was interrupted will be inspected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Liquid vapor condensate pumps installed as part of the vapor collection and control systems will be visually inspected weekly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Vapor collection piping installed as part of the vapor collection and control systems, and the vapor spaces of tanks connected to the vapor collection system will be visually inspected for tears, leaks, holes, or other visible signs of vapor leaks. Seepage of crude oil from the seams of bolted tanks will not be considered to be visual evidence of a vapor leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Inaccessible components will be visually inspected monthly and if no leaks are observed for two consecutive months, those components may be inspected once every three months. Inaccessible components will be monitored annually using EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A portable hydrocarbon analyzer calibrated against methane will be employed, in accordance with EPA Method 21, to check for leaks in inaccessible components in vapor collection service, including all threaded and flanged connections in vapor collection piping installed as part of the vapor collection and control systems. Buried lines in vapor collection service will be monitored where the lines emerge from the ground. The probe tip will be placed at the surface of the component interface to be monitored, unless moving parts or foreign substances are present that could interfere with the safe or proper operation of the monitoring equipment. In this case the probe tip will be held within one centimeter of the surface without touching it. A component is any valve, fitting, pump, compressor, hatch, sight glass, meter, pressure relief device or diaphragm. A component is accessible if it is located within 15 feet of the ground or, if higher, within 6 feet of a platform. Buried components are not accessible. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If: (i) a visual inspection reveals a tear, leak, hole, or visible sigh of a vapor leak; (ii) a leak is found using EPA Method 21; or (iii) a liquid leak is identified, Texaco shall, immediately after identifying the leak, mark the location of the leak with a highly visible, waterproof tag or label noting the date the leak was identified and the classification of the leak; provided, however, that tags or labels will only be required for leaks located in accessible areas and where such tags or labels can be safely applied using readily available equipment such as platforms and ladders. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. All leaks will be minimized to the extent practical within one hour of discovery to stop or reduce emissions to the atmosphere. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Class I leaks, 1,000 to 9,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 14 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Class II leaks, 10,000 to 49,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 5 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Class III leaks, 50,000 ppm VOC as methane (or greater) in accordance with EPA Method 21 and all liquid leaks, shall be repaired within 24 hours of discovery. If the immediate repairs do not eliminate the leak from the component, but do reduce the leak rate for the component to between 1,000 and 10,000 ppm, the leak shall then be treated as a Class II leak and five additional days shall be allowed to perform further repairs to reduce the leak rate below 1,000 ppm. A liquid leak is a visible mist or the dripping of liquid at the rate of more than three drops per minute. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
19. All leaks that require repair or replacement of "critical components" may be delayed for up to one year or the next shutdown that occur after 30 days from the date of leak discovery, whichever is sooner. If a "critical component" is found to have a Class III leak, Texaco will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days after the leak is confirmed through EPA Method 21 to be a Class III leak and will be initiated during the next shutdown period that occurs more than 30 days from the APCD approval. A critical component is any component that would result in a reduction in the daily rate of oil production of 33% or greater for any particular tank site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If a component is found to have five Class II or III leaks within a one-year period, Texaco will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days and initiated within 15 days of APCD approval. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Temporary emissions brought about by the repair process (e.g., the necessary opening of valves or hatches for component repair or replacement) are not leaks provided that the total duration of those emissions is less than 24 hours for each repair process. Emissions caused by the automatic opening of pressure relief devices within design specifications are also not leaks. For tears, leaks, holes, or other visible signs of vapor leaks identified in vapor collection piping, components, and vapor spaces of tanks, EPA Method 21 will be utilized within 3 days to determine the magnitude of the leak, and the class of the leak will be based on the levels set forth in this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Inspection and repair records will be maintained for a period of 5 years on paper or electronically. These records will not be included in routine reports to any agency, but will be available to the EPA or the APCD upon request. The records will include: a) Identification of each leaking component by its name, type of component and the tank or unit where it is located. b) The date of leak detection, the method of identification, and the emission level (in ppm, if applicable). c) Date of leak repair. d) Date and emission level of recheck after repair. e) For each site, the total number of components inspected and the total number and percentage of leaking components found. f) Identification and location of critical components found leaking that cannot be repaired for one year or until the next unit turnaround. g) Method used to minimize the leak from a critical component which cannot be repaired for one year or until the next unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. When a Class II or III leak is identified, Texaco will notify the APCD of the leak by the close of business within two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. When a critical component leak is identified, Texaco will notify the APCD of the leak by the close of business within the next two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. A summary or summaries of the records of leaks developed for condition 25 above will be provided to the APCD within 30 days after the end of each calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

27. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit

28. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.4.6] 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.
29. The efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 18 or 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

30. The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Formerly S-1109-402-1.
PERMIT UNIT REQUIREMENTS

1. When the vent line is open free water knockout vessel, water stand vessel (V-190) and sand jet (V-200) vessels shall only vent to Mecca-Rambler casing vapor recovery system permit unit #S-1131-1008. [District NSR Rule] Federally Enforceable Through Title V Permit

2. When the vent line for this permit unit is closed, produced fluids shall only be introduced only to vapor controlled tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Components and seals on this vessel shall be maintained gas tight as defined in Rule 4623. [District NSR Rule] Federally Enforceable Through Title V Permit

4. VOC emissions from this unit shall not exceed 1.7 lb/day (fugitive). [District NSR Rule] Federally Enforceable Through Title V Permit

5. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended 12/20/01). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

6. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

8. The tank shall be inspected at least once each calendar month, except as follows. In the event no leaks are found for two consecutive months, the tank may be inspected once in three months. If a leak is subsequently found, monthly inspections will be resumed until no leaks are found for two consecutive months at which point inspections will again take place once every three months. In addition, repaired leaks will be reinspected within five calendar days after completion of the repair. [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.
9. Pressure relief devices that are designed to relieve pressure in the event of a shutdown of the vapor recovery compressor will be checked within three days of a known or suspected pressure relief event to confirm gas-tight closure. The suspected pressure relief events that will trigger inspections are shutdowns of the vapor recovery system. When such an event occurs, the Varec hatches and devices and hinged, unbolted hatch covers on tanks where vapor recovery service was interrupted will be inspected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Liquid vapor condensate pumps installed as part of the vapor collection and control systems will be visually inspected weekly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Vapor collection piping installed as part of the vapor collection and control systems, and the vapor spaces of tanks connected to the vapor collection system will be visually inspected for tears, leaks, holes, or other visible signs of vapor leaks. Seepage of crude oil from the seams of bolted tanks will not be considered to be visual evidence of a vapor leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Inaccessible components will be visually inspected monthly and if no leaks are observed for two consecutive months, those components may be inspected once every three months. Inaccessible components will be monitored annually using EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A portable hydrocarbon analyzer calibrated against methane will be employed, in accordance with EPA Method 21, to check for leaks in accessible components in vapor collection service, including all threaded and flanged connections in vapor collection piping installed as part of the vapor collection and control systems. Buried lines in vapor collection service will be monitored where the lines emerge from the ground. The probe tip will be placed at the surface of the component interface to be monitored, unless moving parts or foreign substances are present that could interfere with the safe or proper operation of the monitoring equipment. In this case the probe tip will be held within one centimeter of the surface without touching it. A component is any valve, fitting, pump, compressor, hatch, sight glass, meter, pressure relief valve, or diaphragm. A component is accessible if it is located within 15 feet of the ground or, if higher, within 6 feet from a platform. Buried components are not accessible. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If (i) a visual inspection reveals a tear, leak, hole, or visible sign of a vapor leak; (ii) a leak is found using EPA Method 21; or (iii) a liquid leak is identified, Texaco shall, immediately after identifying the leak, mark the location of the leak with a highly visible, waterproof tag or label noting the date the leak was identified and the classification of the leak; provided, however, that tags or labels will only be required for leaks located in accessible areas and where such tags or labels can be safely applied using readily available equipment such as platforms and ladders. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. All leaks will be minimized to the extent practical within one hour of discovery to stop or reduce emissions to the atmosphere. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Class I leaks, 1,000 to 9,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 14 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Class II leaks, 10,000 to 49,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 5 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Class III leaks, 50,000 ppm VOC as methane (or greater) in accordance with EPA Method 21 and all liquid leaks, shall be repaired within 24 hours of discovery. If the immediate repairs do not eliminate the leak from the component, but do reduce the leak rate for the component to between 1,000 and 10,000 ppm, the leak shall then be treated as a Class I leak and five additional days shall be allowed to perform further repairs to reduce the leak rate below 1,000 ppm. A liquid leak is a visible mist or the dripping of liquid at the rate of more than three drops per minute. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
19. All leaks that require repair or replacement of "critical components" may be delayed for up to one year or the next shutdown that occur after 30 days from the date of leak discovery, whichever is sooner. If a "critical component" is found to have a Class III leak, Texaco will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days after the leak is confirmed through EPA Method 21 to be a Class III leak and will be initiated during the next shutdown period that occurs more than 30 days from the APCD approval. A critical component is any component that would result in a reduction in the daily rate of oil production of 33% or greater for any particular tank site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If a component is found to have five Class II or III leaks within a one-year period, Texaco will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days and initiated within 15 days of APCD approval. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Temporary emissions brought about by the repair process (e.g., the necessary opening of valves or hatches for component repair or replacement) are not leaks provided that the total duration of those emissions is less than 24 hours for each repair process. Emissions caused by the automatic opening of pressure relief devices within design specifications are also not leaks. For tears, leaks, holes, or other visible signs of vapor leaks identified in vapor collection piping, components, and vapor spaces of tanks, EPA Method 21 will be utilized within 3 days to determine the magnitude of the leak, and the class of the leak will be based on the levels set forth in this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Inspection and repair records will be maintained for a period of 5 years on paper or electronically. These records will not be included in routine reports to any agency, but will be available to the EPA or the APCD upon request. The records will include: a) Identification of each leaking component by its name, type, component and the tank or unit where it is located. b) The date of leak detection, the method of identification, and the emission level (in ppm, if applicable). c) Date of leak repair. d) Date and emission level of recheck after repair. e) For each site, the total number of components inspected and the total number and percentage of leaking components found. f) Identification and location of critical components found leaking that cannot be repaired for one year or until the next unit turnaround. g) Method used to minimize the leak from a critical component which cannot be repaired for one year or until the next unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. When a Class II or III leak is identified, Texaco will notify the APCD of the leak by the close of business within two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. When a critical component leak is identified, Texaco will notify the APCD of the leak by the close of business within the next two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. A summary or summaries of the records of leaks developed for condition 25 above will be provided to the APCD within 30 days after the end of each calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

27. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit

28. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.4.6] 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.
29. The efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 18 or 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

30. The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Formerly permit number S-1109-403-1.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1085-4
SECTION: 19  TOWNSHIP: 28S  RANGE: 28E
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:
83.3 MMBTU/hr AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, NATURAL GAS AUXILIARY FUEL, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY. RAMBLER LEASE

PERMIT UNIT REQUIREMENTS

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

2. Flare shall be equipped with natural gas or propane fired pilot and automatic re-ignition provisions. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Vapor recovery gas and natural gas lines to flare shall be equipped with operational volumetric flow rate indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

4. Flare shall only operate when steam generators S-1131-999, S-1131-065, S-1131-066 and S-1131-067 are not operating. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Only PUC quality natural gas or propane shall be used as pilot fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Only PUC-quality gas with sulfur content less than or equal to 1 grain sulfur per 100 scf of gas shall be used to supplement gas to the flare. [District Rule 2201]

7. Maximum volume of gas incinerated in this flare shall not exceed the following: 500,000 scf/day vapor recovery gas and 302,160 scf/day PUC quality natural gas (includes 2,160 scf/day natural gas pilot fuel). [District NSR Rule] Federally Enforceable Through Title V Permit

8. The vapor recovery gas sulfur compound concentration shall not exceed 600 ppmv (35.4 grains S/100scf). [District NSR Rule] Federally Enforceable Through Title V Permit

9. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.026, NOx (as NO2) - 0.068, VOC - 0.063, and CO - 0.370. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Permit holder shall document compliance with vapor recovery gas sulfur concentration limit on a monthly basis by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081] Federally Enforceable Through Title V Permit

11. The permittee shall keep accurate daily records of volume, type, & location of gas flared and operational status of steam generators S-1131-999, S-1131-065, S-1131-066 and S-1131-067, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT NO: S-1131-1086-7
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA
SECTION: SW34 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY, OPERATED AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD: DESIGNATE AS COMPLIANT DORMANT

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010]
3. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District's Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080]
4. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
5. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080]
6. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]
7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-1086-7, Jan 11 2012 9:24AM - RICHARD: J: Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
8. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. This flare shall not operate within 1,000 feet of any K-12 school. [District Rule 4102]

10. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070]

11. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2]

12. 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]

13. Flare gas pressure shall not be less than 5 psig when incinerating combustible gases. [District Rule 4311, 5.6]

14. The Thermally Enhanced Oil Recovery (TEOR)/vapor control gas line to the flare shall be equipped with a non-resettable totalizing volumetric flow meter. [District Rule 2201]

15. The natural gas line to the flare shall be equipped with a non-resettable totalizing volumetric flow meter. [District Rule 2201]

16. Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District Rules 2201 and 4311, 5.3]

17. Flare shall only operate when steam generators S-1131-064, S-1131-998 and S-1131-1003 are not operating. [District Rule 2201]

18. Only PUC quality natural gas or propane shall be used as pilot fuel. [District Rules 2201 and 4102]

19. Maximum volume of gas incinerated in this flare shall not exceed the following: 210,000 scf/day TEOR/ vapor control gas and 202,160 scf/day PUC quality natural gas (includes 2,160 scf/day pilot fuel). [District Rule 2201]

20. Sulfur compound concentration (as H2S) of TEOR/ vapor control gas shall not exceed 360 ppmv. [District Rules 2201 and 4801]

21. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.0202, NOx (as NO2) - 0.068, VOC - 0.006, and CO - 0.370. [District Rule 2201]

22. At least once per month, the permittee shall document compliance with TEOR/ vapor control gas sulfur concentration limit by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081]

23. Permittee shall maintain accurate daily records of type and volume of gas flared and H2S concentration. [District Rule 1070 and 2520, 9.3.2]

24. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2]
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1131-1087-5

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

SECTION: SW28 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD: DESIGNATE AS COMPLIANT DORMANT

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit

2. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010]

3. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District's Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080]

4. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]

5. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080]

6. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]

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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadrelin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

Southern Regional Office  •  34946 Flyover Court  •  Bakersfield, CA 93308  •  (661) 392-5500  •  Fax (661) 392-5585
8. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Approved locations of operation are Sections 25, 28, 30, 31, 32, and 36 of T28S, R28W and Sec 5, 6, 7, and 8 of T29S, R28E. [District Rule 4102]

10. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

11. The 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

12. 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

13. Flare gas pressure shall not be less than 5 psig when incinerating combustible gasses. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

14. Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District NSR Rule and District Rule 4311, 5.3] Federally Enforceable Through Title V Permit

15. Thermally Enhanced Oil Recovery (TEOR)/ vapor control gas and natural gas lines to flare shall be equipped with volumetric flow rate indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Flare shall only operate when steam generators S-1131-997 and S-1131-1016 are not operating. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Only PUC quality natural gas or propane shall be used as pilot fuel. [District NSR Rule and District Rule 4102] Federally Enforceable Through Title V Permit

18. Maximum volume of gas incinerated in this flare shall not exceed the following: 200,000 scf/day vapor recovery gas and 37,160 scf/day PUC quality natural gas (includes 2,160 scf/day pilot fuel). [District NSR Rule] Federally Enforceable Through Title V Permit

19. Sulfur compound concentration (as H2S) of vapor recovery gas shall not exceed 810 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.0202, NOx (as NO2) - 0.068, VOC - 0.004, and CO - 0.370. [District NSR Rule] Federally Enforceable Through Title V Permit

21. At least once per month, the permittee shall document compliance with TEOR/ vapor control gas sulfur concentration limit by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The results of sample analysis, conducted for startup, shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall maintain accurate daily records of type and volume of gas flared and H2S concentration. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1091-1
EXPIRATION DATE: 02/28/2007
EQUIPMENT DESCRIPTION:
1650 GALLON TRANSPORTABLE CHEMICAL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. The equipment shall not be operated within 1000 feet of any K-12 school. [District NSR Rule] Federally Enforceable Through Title V Permit

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

3. True vapor pressure of any organic liquid introduced, placed or stored to the tank shall not exceed 1.5 psia at liquid temperature. [District Rule 4623, 2.0 and 2010] Federally Enforceable Through Title V Permit

4. The operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended June 18, 1998). Determinations shall be made annually during summer and whenever there is a change in the source or type of organic liquid entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

5. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended June 18, 1998). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District NSR Rule] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

6. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District NSR Rule] Federally Enforceable Through Title V Permit

7. Tank seams, welds, joints, piping, valves and fittings shall be inspected for gas leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours after detection of the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [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.
9. All piping, fittings, valves, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane [40 CFR 60.112(b)(3)(i)] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit

14. For crude oil with an API gravity of 20 degrees or less, true vapor pressure shall be measured using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

15. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 20 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

16. 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

18. 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

19. 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

20. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116(b)] Federally Enforceable Through Title V Permit

21. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart Kb (except 60.113b(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

28. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

29. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

31. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

32. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable 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. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

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

2. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs prior to blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

3. Except for fluids from the well casing, fluids produced from these steam-enhanced wells shall be introduced only to tanks vented to a District approved vapor collection and control system, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The well casing vents shall either be (1) connected to the well casing vapor collection system that serves this permit unit; (2) connected to the Station 36 production pipeline; (3) connected to the Station 36 tank vapor control system listed on S-1131-598; or (4) connected to flare S-1131-1086, flare S-1131-1087 or flare S-1131-1108. [District Rules 2201 and 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit

5. High point separators shall vent only to flares S-1131-1086, S-1108, and S-1108 and/or to tank vapor control system S-1131-598. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall supply the District with a map showing the locations of the high point separators before initial start-up. The map shall be updated annually, kept at the facility, and made readily available to the District upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

8. The VOC content of the casing gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 10% or less VOC by weight for eight consecutive quarterly 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

10. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 14, 2006). [District Rule 4401, 4.1] 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.
11. The annual inspection requirements of Section 5.8.1 through Section 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10 wt %) or less, as determined by the test methods in Section 6.3.5 of Rule 4401. [District Rule 4401 4.9] Federally Enforceable Through Title V Permit

12. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

13. An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following conditions exist at the facility or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates that one or more of the following conditions exist at the facility: Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

14. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

15. An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the following conditions exist at the facility or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates that one or more of the following conditions in Section 5.6.2 exist at the facility: existence of a component with any of the following: a major liquid leak, a gas leak greater than 50,000 ppmv, a minor liquid leak or a minor gas leak in excess of the allowable number of leaks allowed by Table 3 of Rule 4401, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv in excess of the allowable number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

16. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

17. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

18. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

20. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

22. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

23. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

24. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401 5.8.6] Federally Enforceable Through Title V Permit

25. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

26. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

27. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

28. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

29. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

30. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

31. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit
32. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

33. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit

34. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

35. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

36. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

37. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

38. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

39. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

40. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 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

41. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

42. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

43. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

44. 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

45. 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. [District Rule 4401 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.
46. 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 of Rule 4401. [District Rule 4401 6.2.5] Federally Enforceable Through Title V Permit

47. 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

48. 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

49. 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

50. 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

51. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

52. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4401, 6.1] Federally Enforceable Through Title V Permit

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

PERMIT NO: S-1131-1108-3
ISSUANCE DATE: 08/19/2011

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

LOCATION: HEAVY OIL CENTRAL
KERN COUNTY, CA

EQUIPMENT DESCRIPTION:
MODIFICATION OF 83.0 MMBTU/HR AIR ASSISTED LOW USE FLARE WITH AUTOMATIC IGNITION AND NATURAL GAS PILOT ASSEMBLY OPERATED AT MULTIPLE SPECIFIED LOCATIONS WITHIN CHEVRON USA’S HEAVY OIL CENTRAL STATIONARY SOURCE. DESIGNATE AS COMPLIANT DORMANT

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit

2. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010]

3. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District's Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080]

4. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]

5. While dormant, normal source testing and monitoring shall not be required. [District Rule 2080]

6. Upon recommencing operation of this unit, normal source testing and monitoring shall resume. [District Rule 2080]

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

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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2550, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1131-1108-3 Jan 11 2012 9:24AM - REVISED - Joint Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
9. Flare is authorized to operate only at Sections 25, 30, 31, 32, and 36 in T28S/R28E and Sections 5, 6, 7, and 8 in T29S/R28E. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

11. 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 or darker than Ringlemann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The 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

13. 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

14. Flare gas pressure shall not be less than 5 psig when incinerating combustible gases. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

15. The Thermally Enhanced Oil Recovery (TEOR)/vapor control gas line to the flare shall be equipped with a non-resettable totalizing volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The natural gas line to the flare shall be equipped with a non-resettable totalizing volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Flare shall be equipped with a natural gas-fired pilot and an automatic re-ignition system. [District Rules 2201 and 4311, 5.3] Federally Enforceable Through Title V Permit

18. Only PUC quality natural gas shall be used as pilot fuel. [District Rule 2201 and 4311,5.3] Federally Enforceable Through Title V Permit

19. Maximum amount of flared gas and pilot gas combusted shall not exceed 199,177 MMBtu/day nor 53,943.8 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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

21. Sulfur content of flared gas and pilot gas shall not exceed 1.0 gr/100scf. [District Rule 2201 and 4801] Federally Enforceable Through Title V Permit

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

23. Flared gas and pilot 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 flared gas and pilot gas, then the testing frequency shall be quarterly. If a quarterly testing fails to show compliance, weekly testing shall resume. [District Rule 1070] Federally Enforceable Through Title V Permit

24. Sulfur content of flared gas and pilot gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070] Federally Enforceable Through Title V Permit

25. Higher heating value of flared gas and pilot gas shall be determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 1070] Federally Enforceable Through Title V Permit

26. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
27. Permittee shall maintain accurate records of types of pilot gas and flared gas, sulfur contents of flared gas and pilot gas, higher heating values of flared and pilot gas, and daily and annual quantities of flared gas and pilot gas combusted in the flare. [District Rules 2201 and Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2] Federally Enforceable Through Title V Permit
PERMIT UNIT: S-1131-1117-1  
EXPIRATION DATE: 02/28/2007

EQUIPMENT DESCRIPTION:  
480 HP CATERPILLAR MODEL C9 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
5. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
6. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
7. During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables, and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]
12. 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]
13. Emissions from this IC engine shall not exceed any of the following limits: 2.61 g-NOx/bhp-hr, 2.31 g-CO/bhp-hr, or 0.15 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
14. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
15. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

16. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115]

17. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]
PERMIT UNIT REQUIREMENTS

1. Permittee shall provide written notification to the District within 48 hours of operating an engine under this permit (if an engine is located onsite longer than 24 hours). Such notification shall include the date the unit was brought onsite, the manufacturer, model number, maximum rating, and emissions information that documents that the unit meets the emission limits and requirements specified in the permit. [District Rule \(\text{i070}\) Federally Enforceable Through Title V Permit

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

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

4. 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

5. The exhaust stack of any IC engine utilized for this permit unit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

6. Any IC engine utilized for this permit unit shall not be located within 1000 feet of any receptor or any K-12 school. [District Rule 4102 and CH&SC 42301.6]

7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used in any IC engine utilized for this permit unit. [District Rules 2201 and 4801 and 17 CCR 93116] Federally Enforceable Through Title V Permit

8. Emissions from any IC engine utilized for this permit unit shall not exceed any of the following limits: 2.80 g-NOx/bhp-hr, 2.60 g-CO/bhp-hr, or 0.20 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit

9. Emissions from any IC engine utilized for this permit shall not exceed 0.15 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93116] Federally Enforceable Through Title V Permit

10. Total operation of this permit unit shall not exceed 300 hours per year on a rolling month average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

11. Any IC engine utilized for this permit unit shall not be operated at any single location (as defined in Rule 4701) for more than 12 consecutive months. [40 CFR Part 89 and District Rule 4701] Federally Enforceable Through Title V Permit

12. Any IC engine utilized for this permit unit shall be operated in accordance with the requirements of the Code of Federal Regulations [District Rule 2201 and 40 CFR Part 89] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
13. Any IC engine utilized for this permit unit shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit

14. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

15. Any IC engine utilized for this permit unit shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

16. The permittee shall maintain a permit unit operating log that shall include the following: a record of the cumulative annual hours of operation of the engine, the quantity of diesel fuel used, and a record of maintenance or modifications performed on any IC engine utilized for this permit unit. These records shall be updated on a monthly basis. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of each location where the permit unit is operated, including dates and duration of residency at each location, and shall update those records each time any IC engine utilized for this permit unit is moved. [District Rule 2201 and 40 CFR 89 and 17 CCR 93116] Federally Enforceable Through Title V Permit

18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

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>
<th>EQUIPMENT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62-28</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-38; DIS# 20530-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN MODEL GLE LOW-NOX BURNER, AND NORTH AMERICAN OPTIMIZER</td>
</tr>
<tr>
<td>S-1131-63-26</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-39; DIS# 20631-79) WITH NORTH AMERICAN GLE LOW-NOX BURNER, FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-64-26</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-40; DIS# 20632-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER</td>
</tr>
<tr>
<td>S-1131-65-24</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMAN 62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-41; DIS# 20633-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN, MODEL #5131-HGCR-62.5, BURNER AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-66-25</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-42; DIS# 20634-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER. (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-67-26</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR C.E. NATCO NATURAL GAS-FIRED STEAM GENERATOR (HSG# 60-43; DIS# 20635-79) WITH FLUE GAS RECIRCULATION AND A NORTH AMERICAN GLE LOW-NOX BURNER (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-68-25</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR C.E. NATCO NATURAL GAS-FIRED STEAM GENERATOR (HSG# 60-44; DIS# 20636-79) WITH FLUE GAS RECIRCULATION AND A NORTH AMERICAN GLE LOW-NOX BURNER (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-69-25</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-45; DIS# 20637-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER. (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-70-25</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-46; DIS# 20638-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>S-1131-73-25</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-49; DIS# 20641-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)</td>
</tr>
<tr>
<td>PERMIT NUMBER</td>
<td>FEE DESCRIPTION</td>
<td>FEE RULE</td>
<td>QTY</td>
<td>FEE AMOUNT</td>
<td>FEE TOTAL</td>
<td>PERMIT 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-1131-77-24</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 66-67; DIS# 20611-79) WITH FLUE GAS RECIRCULATION. NORTH AMERICAN, MODEL #5131-HGCR-62. 5, BURNER AND NORTH AMERICAN OPTIMIZER. (CANNFIELD LEASE)</td>
</tr>
<tr>
<td>S-1131-78-22</td>
<td>62,500 kBu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-69; DIS# 20610-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (CANNFIELD LEASE)</td>
</tr>
<tr>
<td>S-1131-82-25</td>
<td>62,500 kBu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-68; DIS# 20643-79) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, A FLUE GAS RECIRCULATION FGR SYSTEM AND NORTH AMERICAN OPTIMIZER - SJ LOWER</td>
</tr>
<tr>
<td>S-1131-94-26</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STRUTHERS STEAM GENERATOR (HSG# 70-99; DIS# 20627-81) WITH FLUE GAS RECIRCULATION. NORTH AMERICAN, MODEL #5131-HGCR-62. 5, BURNER AND NORTH AMERICAN OPTIMIZER (CANNFIELD LEASE)</td>
</tr>
<tr>
<td>S-1131-95-22</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS/FIRED STRUTHERS STEAM GENERATOR (HSG# 70-31; DIS# 20642-79) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER - SJ LOWER</td>
</tr>
<tr>
<td>S-1131-98-29</td>
<td>62.5 MMBTU/HR STEAM GENERATOR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS/FIRED STEAM GENERATOR (HSG# 70-44; DIS# 20608-82) WITH A NORTH AMERICAN MODEL #GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION</td>
</tr>
<tr>
<td>S-1131-99-33</td>
<td>62.5 MMBTU/HR STEAM GENERATOR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS/FIRED STEAM GENERATOR (HSG# 70-45; DIS# 20609-82) WITH A NORTH AMERICAN MODEL #GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION</td>
</tr>
<tr>
<td>S-1131-262-8</td>
<td>720 WELLS</td>
<td>3020-09 B</td>
<td>720</td>
<td>9.34</td>
<td>1,400.00</td>
<td>A</td>
<td>720 STEAM-ENHANCED CRUDE-OIL PRODUCTION WELLS WITH CLOSED CASING VENTS</td>
</tr>
<tr>
<td>S-1131-448-5</td>
<td>31,500 GALLONS</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>31,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, GLOBE WASH TANK</td>
</tr>
<tr>
<td>S-1131-460-4</td>
<td>31,500 GALLONS</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>31,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, G &amp; WA WASH TANK</td>
</tr>
<tr>
<td>S-1131-509-4</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 #TK-37</td>
</tr>
<tr>
<td>S-1131-529-4</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 #0.5GK27</td>
</tr>
<tr>
<td>PERMIT NUMBER</td>
<td>FEE DESCRIPTION</td>
<td>FEE RULE</td>
<td>QTY</td>
<td>FEE AMOUNT</td>
<td>FEE TOTAL</td>
<td>PERMIT 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-1131-530-4</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 #0.5GK25</td>
</tr>
<tr>
<td>S-1131-531-4</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 #0.5GK26</td>
</tr>
<tr>
<td>S-1131-506-4</td>
<td>42,000 GALLONS</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>42,000 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, GOLD STANDARD DRAIN TANK</td>
</tr>
<tr>
<td>S-1131-592-3</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, S. PROCESS WASH TANK</td>
</tr>
<tr>
<td>S-1131-594-7</td>
<td>190,260 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>190,260 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, SETTLING #3? AUTHORIZED TO RECEIVE FLUIDS FROM S-1131 AND S-1127</td>
</tr>
<tr>
<td>S-1131-598-40</td>
<td>1,806,000 gallons</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td>1,806,000 GALLON (42,000 BBL) 80' DIA X 48' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK SURGE #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING 5 STEAM GENERATORS, DOGGR APPROVED VAPOR DISPOSAL WELLS, AND SULFUR REMOVAL SYSTEM</td>
</tr>
<tr>
<td>S-1131-599-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>227,200 GALLON FIXED-ROOF CRUDE OIL WASH TANK #1-A AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-600-3</td>
<td>248,640 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>248,640 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #6600 S OT</td>
</tr>
<tr>
<td>S-1131-601-3</td>
<td>248,640 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>248,640 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #6600 N OT</td>
</tr>
<tr>
<td>S-1131-602-3</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, N. PROCESS WASH TANK</td>
</tr>
<tr>
<td>S-1131-803-7</td>
<td>187,740 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>187,740 GALLON FIXED-ROOF CRUDE OIL SETTLING TANK #43 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-600-7</td>
<td>187,740 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #42 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-508-22</td>
<td>420,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>420,000 GALLON (10,000 BBL) 55' DIA X 24' FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPIING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598</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-1131-610-7</td>
<td>190,260 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>190,260 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #30 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-613-20</td>
<td>420,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>420,000 GALLON (10,000 BBL) 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
</tr>
<tr>
<td>S-1131-615-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #2-B AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-619-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #1-5 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-620-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #2 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-621-7</td>
<td>187,740 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #45 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-622-3</td>
<td>2,203,320 GALLONS</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td>2,203,320 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #60GK2</td>
</tr>
<tr>
<td>S-1131-623-7</td>
<td>187,740 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #44 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-625-7</td>
<td>187,740 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>187,740 GALLON FIXED ROOF CRUDE OIL SETTLING TANK #46 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)</td>
</tr>
<tr>
<td>S-1131-626-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-2 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
</tr>
<tr>
<td>S-1131-627-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-3 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</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></td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------</td>
<td>----------</td>
<td>-----</td>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>S-1131-628-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-1 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-629-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-630-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-631-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #1 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-632-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-5 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-633-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-6 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-634-7</td>
<td>373,380 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>373,380 GALLON FIXED ROOF CRUDE OIL WASH TANK #10-4 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-635-7</td>
<td>227,220 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>227,220 GALLON FIXED ROOF CRUDE OIL WASH TANK #2-A AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 &quot;SURGE&quot; TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-636-3</td>
<td>443,940 GALLONS</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>443,940 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #10000 SHIP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-638-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-641-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #1 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-650-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-651-12</td>
<td>1,579,200 GALLON</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #3 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-652-3</td>
<td>2,287,320 GALLONS</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,287,320 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #60GK1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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-1131-663-3</td>
<td>10,500 GALLONS</td>
<td>3020-05 B</td>
<td>1</td>
<td>93.00</td>
<td>93.00</td>
<td>A</td>
<td>10,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK #TK2-4</td>
</tr>
<tr>
<td>S-1131-670-3</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 #0.5GK37</td>
</tr>
<tr>
<td>S-1131-671-3</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 #0.5GK36</td>
</tr>
<tr>
<td>S-1131-702-3</td>
<td>10,500 GALLONS</td>
<td>3020-05 B</td>
<td>1</td>
<td>93.00</td>
<td>93.00</td>
<td>A</td>
<td>10,500 GALLON FIXED ROOF CRUDE OIL PRODUCTION TANK, #TK8-10</td>
</tr>
<tr>
<td>S-1131-716-21</td>
<td>6280 WELLS W/O VAPOR CONTROL SYS.</td>
<td>3020-09 B</td>
<td>6280</td>
<td>9.34</td>
<td>1,400.00</td>
<td>A</td>
<td>TEOR OPERATION WITH 6280 STEAM ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS PRODUCING TO TANKS WITH VAPOR CONTROL</td>
</tr>
<tr>
<td>S-1131-724-6</td>
<td>3 nozzles x 1 grade per nozzle</td>
<td>3020-11 B</td>
<td>3</td>
<td>34.00</td>
<td>102.00</td>
<td>A</td>
<td>GASOLINE DISPENSING OPERATION WITH TWO 10,000 GALLON UNDERGROUND STORAGE TANKS SERVED BY OPW PHASE I ENHANCED VAPOR RECOVERY SYSTEM (VR-102-A), AND THREE FUELING POINTS WITH THREE GASOLINE DISPENSING NOZZLES SERVED BY HEALY PHASE II ENHANCED VAPOR RECOVERY SYSTEM WITHOUT ISD (VR-201-E) (KERN RIVER)</td>
</tr>
<tr>
<td>S-1131-833-2</td>
<td>240 bhp IC engine</td>
<td>3020-10 C</td>
<td>1</td>
<td>240.00</td>
<td>240.00</td>
<td>A</td>
<td>240 BHP DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR</td>
</tr>
<tr>
<td>S-1131-858-13</td>
<td>62.5 MMBtu/hr GASVAPOR RECOVERY GAS FIRED NATIONAL STEAM GENERATOR (HSG# 50-43; DIS# 20628-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN MODEL #5131-HGR-62.5 BURNER, AND NORTH AMERICAN OPTIMIZER (CANFIELD LEASE)</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>Non-compliant Dormant 62.5 MMBtu/hr Natural Gas/Vapor Recovery Gas Fired National Steam Generator (HSG# 50-43; DIS# 20628-79) with Flue Gas Recirculation, North American Model #5131-HGR-62.5 Burner, and North American Optimizer (Canfield Lease)</td>
</tr>
<tr>
<td>S-1131-859-17</td>
<td>62,500 kbtu/hr GASVAPOR RECOVERY GAS FIRED STEAM GENERATOR (HSG# 50-51; DIS# 19161 -75) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME, LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER)</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBtu/hr Natural Gas//Vapor Recovery Gas/Fired Steam Generator (HSG# 50-51; DIS# 19161-75) with a North American Model Gle Magna-Flame, Low Nox Burner, Flue Gas Recirculation (FGR) System and North American Optimizer (San Joaquin Lower)</td>
</tr>
<tr>
<td>S-1131-861-1</td>
<td>56,880 GALLONS</td>
<td>3020-05 D</td>
<td>1</td>
<td>185.00</td>
<td>185.00</td>
<td>A</td>
<td>56,880 GALLON 35.5 FT. HIGH X 17 FT. DIAMETER, FIXED ROOF, CONSTANT LEVEL, CRUDE OIL WASH TANK</td>
</tr>
<tr>
<td>S-1131-862-1</td>
<td>56,880 GALLONS</td>
<td>3020-05 D</td>
<td>1</td>
<td>185.00</td>
<td>185.00</td>
<td>A</td>
<td>56,880 GALLON 35.5 FT. HIGH X 17 FT. DIAMETER, FIXED ROOF, CONSTANT LEVEL, CRUDE OIL WASH TANK</td>
</tr>
<tr>
<td>S-1131-877-12</td>
<td>62.5 MMBtu/hr GASVAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR #46 WITH FGR, NORTH AMERICAN MODEL GLE 4231 BURNER AND O2 CONTROLLER (CENTRAL PLANT)</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER WITH FGR AND AN O2 CONTROLLER (#70, CENTRAL PLANT)</td>
</tr>
<tr>
<td>S-1131-879-16</td>
<td>62,500 kbtu/hr burner</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER WITH FGR AND AN O2 CONTROLLER (#70, CENTRAL PLANT)</td>
</tr>
</tbody>
</table>
## Detailed Facility Report

### For Facility=1131 and excluding Deleted Permits

<table>
<thead>
<tr>
<th>PERMIT NUMBER</th>
<th>FEE DESCRIPTION</th>
<th>FEE RULE</th>
<th>QTY</th>
<th>AMOUNT</th>
<th>TOTAL</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-880-11</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-881-12</td>
<td>62,500 kBTu/hr burner</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-883-12</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-884-14</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-885-25</td>
<td>210,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-886-17</td>
<td>210,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-891-16</td>
<td>210,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-892-16</td>
<td>210,000 gallons</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-903-15</td>
<td>316 wells without vapor recovery</td>
<td>3020-09 B</td>
<td>316</td>
<td>9.34</td>
<td>1,400.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-908-15</td>
<td>62,500 kBTu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-909-15</td>
<td>490 wells without vapor recovery</td>
<td>3020-09 B</td>
<td>490</td>
<td>9.34</td>
<td>1,400.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-912-9</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
</tr>
<tr>
<td>S-1131-917-9</td>
<td>141 wells</td>
<td>3020-09 B</td>
<td>141</td>
<td>9.34</td>
<td>1,316.94</td>
<td>A</td>
</tr>
</tbody>
</table>

**EQUIPMENT DESCRIPTION**

- **62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (#140) WITH A NORTH AMERICAN MODEL GLE-4231 LOW-NOX BURNER AND FLUE GAS RECIRCULATION (CENTRAL PLANT)**
- **62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN O2 CONTROLLER (CENTRAL PLANT)**
- **62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (#143) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND O2 CONTROLLER (CENTRAL PLANT)**
- **62.5 MM BTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR #144 EQUIPPED WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION. (CENTRAL PLANT)**
- **210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM**
- **210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #3K-S76 WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885**
- **210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885**
- **210,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-885**
- **TEOR OPERATION WITH 316 STEAM-ENHANCED OIL PRODUCTION WELLS (241 STEAM DRIVE WELLS/75 CYCLIC WELLS)**
- **62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (#71) WITH A NORTH AMERICAN GLE LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM (FGR) AND O2 CONTROLLER**
- **TEOR OPERATION WITH 490 STEAM-ENHANCED OIL PRODUCTION WELLS (320 STEAM DRIVE WELLS/170 CYCLIC WELLS)**
- **62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM (RASMUSSEN LEASE)**
- **TEOR OPERATION WITH 141 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS**
<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>
<th>EQUIPMENT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-932-9</td>
<td>168 wells</td>
<td>3020-09 A</td>
<td>168</td>
<td>9.34</td>
<td>1,569.12</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S A-1 &amp; A-2) SERVING 168 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE A LEASE)</td>
</tr>
<tr>
<td>S-1131-941-12</td>
<td>27.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT EMISSIONS UNIT. 27.5 MMBTU/HR THERMOTICS VAPOR CONROT/NUCLEAR GAS-FIRED STEAM GENERATOR #29 WITH FLUE GAS RECIRCULATION AND AMETEK THERMOX O2 CONTROLLER (LEASE FEE A) (GROUP II)</td>
</tr>
<tr>
<td>S-1131-943-14</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT 62.5 MMBTU/HR O-PAR GAS-FIRED STEAM GENERATOR #31, WITH AMETEK THERMOX O2 CONTROLLER - LEASE FEE A</td>
</tr>
<tr>
<td>S-1131-944-8</td>
<td>71 wells</td>
<td>3020-09 A</td>
<td>71</td>
<td>9.34</td>
<td>663.14</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S B-1 &amp; B-2) SERVING 71 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE B LEASE)</td>
</tr>
<tr>
<td>S-1131-958-9</td>
<td>95 wells</td>
<td>3020-09 A</td>
<td>95</td>
<td>9.34</td>
<td>887.30</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S C-1, C-2 &amp; C-3) SERVING 95 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE C LEASE)</td>
</tr>
<tr>
<td>S-1131-961-3</td>
<td>210,000 GALLON TANK.</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>210,000 GALLON (5,000 BBL) FIXED ROOF WASH TANK, KERN RIVER &quot;FEE C&quot; LEASE.</td>
</tr>
<tr>
<td>S-1131-962-3</td>
<td>210,000 GALLON TANK.</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>210,000 GALLON (5,000 BBL) FIXED ROOF WATER STORAGE TANK, KERN RIVER &quot;FEE C&quot; LEASE.</td>
</tr>
<tr>
<td>S-1131-963-3</td>
<td>210,000 GALLON TANK.</td>
<td>3020-05 E</td>
<td>1</td>
<td>246.00</td>
<td>246.00</td>
<td>A</td>
<td>210,000 GALLON (5,000 BBL) FIXED ROOF WATER STORAGE TANK, KERN RIVER &quot;FEE C&quot; LEASE.</td>
</tr>
<tr>
<td>S-1131-964-3</td>
<td>21,000 GALLON TANK.</td>
<td>3020-05 C</td>
<td>1</td>
<td>135.00</td>
<td>135.00</td>
<td>A</td>
<td>21,000 GALLON (500 BBL) FIXED ROOF SKIM TANK, KERN RIVER &quot;FEE C&quot; LEASE.</td>
</tr>
<tr>
<td>S-1131-966-12</td>
<td>27.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT EMISSIONS UNIT. 27.5 MMBTU/HR THERMOTICS VAPOR CONTROL/NATURAL GAS-FIRED STEAM GENERATOR #24 WITH FLUE GAS RECIRCULATION AMETEK THERMOX O2 CONTROLLER (FEE C LEASE)</td>
</tr>
<tr>
<td>S-1131-976-9</td>
<td>23 MMBTU/hr Steam Generator</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 23 MMBTU/HR STRUTHERS GAS-FIRED STEAM GENERATOR WITH FLUE GAS RECIRCULATION AND OXYGEN CONTROLLER/ANALYZER (#13, DIS # 27537-66)</td>
</tr>
<tr>
<td>S-1131-987-9</td>
<td>62,500 kBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (R-3, DIS# 27474-81)</td>
</tr>
<tr>
<td>S-1131-992-9</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR WITH OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (PRICEWELL, #P-9, DIS# 27472-81)</td>
</tr>
</tbody>
</table>
## Detailed Facility Report

**For Facility=1131 and excluding Deleted Permits**

<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>
<th>EQUIPMENT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-993-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (PRICEWELL, P-3, DIS# 28773-85)</td>
</tr>
<tr>
<td>S-1131-994-9</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (MCNANUS, PL-8, DIS# 4322-78)</td>
</tr>
<tr>
<td>S-1131-995-12</td>
<td>50 wells</td>
<td>3020-09 B</td>
<td>50</td>
<td>9.34</td>
<td>467.00</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 50 STEAM DRIVE WELLS WITH CLOSED CASING VENTS</td>
</tr>
<tr>
<td>S-1131-996-12</td>
<td>25 wells</td>
<td>3020-09 A</td>
<td>25</td>
<td>9.34</td>
<td>233.50</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 25 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (KCL 2)</td>
</tr>
<tr>
<td>S-1131-997-9</td>
<td>62.500 kBtu/hr burner</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR THERMOTICS NATURAL GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN OXYGEN CONTROLLER/ANALYZER (ANGUS 2, DIS# 4509-81)</td>
</tr>
<tr>
<td>S-1131-998-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (HOPCO, H-2, DIS# 3w545-87)</td>
</tr>
<tr>
<td>S-1131-999-8</td>
<td>62,500 kBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (RAMBLER, R-7, DIS# 12466-82)</td>
</tr>
<tr>
<td>S-1131-1000-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (RAMBLER, R-8, DIS# 12468-82)</td>
</tr>
<tr>
<td>S-1131-1001-9</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (CHINA 3, DIS#12467-82)</td>
</tr>
<tr>
<td>S-1131-1002-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO STEAM GENERATOR WITH NORTH AMERICAN STAGED COMBUSTION AND FLUE GAS RECIRCULATION SYSTEM</td>
</tr>
<tr>
<td>S-1131-1003-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (HOPCO, H-3, DIS# 39455-87)</td>
</tr>
<tr>
<td>S-1131-1004-8</td>
<td>62.5 MMBTU/HR</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (PRICEWELL, H-4)</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>PERMIT 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-1131-1007-8</td>
<td>170 wells</td>
<td>3020-09 A</td>
<td>170</td>
<td>9.34</td>
<td>1,587.80</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 170 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM (MARCO &amp; B LEASE) (WILMAR LEASE); THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 170 STEAM ENHANCED WELLS</td>
</tr>
<tr>
<td>S-1131-1008-8</td>
<td>118 wells with vapor control</td>
<td>3020-09 A</td>
<td>118</td>
<td>9.34</td>
<td>1,102.12</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 118 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM INCLUDING GAS/LIQUID SEPARATORS, HEAT EXCHANGER, VAPOR COMPRESSOR, CONDENSERS, AND OPTIONAL H2S SCRUBBING SYSTEM FOR CORROSION CONTROL WITH NON-CONDENSIBLE VAPOR PIPED TO SG'S S-1131-987, -990, -999, AND -1000, AND/OR FLARE S-1131-1085, OR SERVED BY VAPOR-CONTROLLED STATION 36 TANKS (RAMBLER LEASE)</td>
</tr>
<tr>
<td>S-1131-1010-8</td>
<td>37 wells</td>
<td>3020-09 A</td>
<td>37</td>
<td>9.34</td>
<td>345.58</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL PRODUCTION OPERATION WITH UP TO 37 STEAM ENHANCED OIL PRODUCTION WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (PARKER LEASE)</td>
</tr>
<tr>
<td>S-1131-1011-8</td>
<td>42 wells</td>
<td>3020-09 A</td>
<td>42</td>
<td>9.34</td>
<td>392.28</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 42 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (POTOMAC LEASE)</td>
</tr>
<tr>
<td>S-1131-1012-8</td>
<td>126 wells</td>
<td>3020-09 A</td>
<td>126</td>
<td>9.34</td>
<td>1,176.84</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 126 STEAM ENHANCED WELLS (BISHOP A LEASE)</td>
</tr>
<tr>
<td>S-1131-1013-8</td>
<td>73 wells</td>
<td>3020-09 A</td>
<td>73</td>
<td>9.34</td>
<td>681.82</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 73 STEAM ENHANCED WELLS (BISHOP B LEASE)</td>
</tr>
<tr>
<td>S-1131-1014-11</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 SERVING UP TO 40 STEAM ENHANCED WELLS (STAUFFER LEASE)</td>
</tr>
<tr>
<td>S-1131-1016-11</td>
<td>62.5 MMBtu/hr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT 62.5 MMBTU/H C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR NORTH AMERICAN BURNER (MODEL NA 5131GR-62.5) AND FLUE GAS RECIRCULATION (ANGUS)</td>
</tr>
<tr>
<td>S-1131-1017-5</td>
<td>43 WELLS</td>
<td>3020-09 A</td>
<td>43</td>
<td>9.34</td>
<td>401.62</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 31 STEAM DRIVE WELLS AND 12 CYCLIC WELLS WITH CLOSED CASING VENTS</td>
</tr>
<tr>
<td>S-1131-1019-5</td>
<td>2.7 MMBtu/hr heater treater</td>
<td>3020-02 F</td>
<td>1</td>
<td>607.00</td>
<td>607.00</td>
<td>A</td>
<td>NON-COMPLIANT DORMANT 2.7 MMBTU/H C.E. NATCO GAS/CASING GAS-FIRED HEATER TREATER (ANGUS)</td>
</tr>
<tr>
<td>S-1131-1031-9</td>
<td>30 WELLS</td>
<td>3020-09 B</td>
<td>30</td>
<td>9.34</td>
<td>280.20</td>
<td>A</td>
<td>TEOR OPERATION WITH 30 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED WELL CASING VENTS - CHINA LEASE</td>
</tr>
<tr>
<td>S-1131-1032-9</td>
<td>30 WELLS</td>
<td>3020-09 B</td>
<td>1</td>
<td>9.34</td>
<td>9.34</td>
<td>A</td>
<td>TEOR OPERATION WITH 30 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED WELL CASING VENTS - RODGERS LEASE</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>PERMIT 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-1131-1033-14</td>
<td>40 Steam Enhanced Wells Without Vapor Recovery</td>
<td>3020-09 A</td>
<td>40</td>
<td>9.34</td>
<td>373.60</td>
<td>A</td>
<td>TEOR OPERATION WITH 40 STEAM-ENHANCED OIL PRODUCTION Wells with CLOSED CASING VENTS AND PRODUCTION ROUTED EXCLUSIVELY TO VAPOR-CONTROLLED TANKS</td>
</tr>
<tr>
<td>S-1131-1035-13</td>
<td>34 wells</td>
<td>3020-09 A</td>
<td>34</td>
<td>9.34</td>
<td>317.56</td>
<td>A</td>
<td>TEOR OPERATION WITH 34 STEAM-ENHANCED OIL PRODUCTION Wells (SEC 34 N)</td>
</tr>
<tr>
<td>S-1131-1036-6</td>
<td>485 closed casing steam drive wells</td>
<td>3020-09 B</td>
<td>485</td>
<td>9.34</td>
<td>1,400.00</td>
<td>A</td>
<td>TEOR OPERATION WITH 485 CYCLIC AND STEAM DRIVE Wells WITH CLOSED CASING VENTS</td>
</tr>
<tr>
<td>S-1131-1037-8</td>
<td>20.0 MW</td>
<td>3020-08A F</td>
<td>1</td>
<td>8,171.00</td>
<td>8,171.00</td>
<td>A</td>
<td>249.0 MMBTU/HR NOMINAL RATING, 20 MW NOMINAL RATING GENERAL ELECTRIC GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH SCR, AMMONIA STORAGE AND DISTRIBUTION SYSTEM, CO CATALYTIC CONVERTER AND CEM SYSTEM FOR NOX, CO AND O2</td>
</tr>
<tr>
<td>S-1131-1038-3</td>
<td>4 MW</td>
<td>3020-08A C</td>
<td>1</td>
<td>1,533.00</td>
<td>1,533.00</td>
<td>A</td>
<td>DORMANT 58.2 MMBTU/HR (NOMINAL RATING), 4.0 MW ALLISON MODEL 501-KB5 GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH WATER INJECTION, HEAT RECOVERY STEAM GENERATOR, AND CEM SYSTEMS FOR NOX, CO, AND O2</td>
</tr>
<tr>
<td>S-1131-1039-9</td>
<td>4 MW</td>
<td>3020-08A C</td>
<td>1</td>
<td>1,533.00</td>
<td>1,533.00</td>
<td>A</td>
<td>DORMANT 58.2 MMBTU/HR (NOMINAL RATING), 4.0 MW ALLISON MODEL 501-KB5 GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH WATER INJECTION, HEAT RECOVERY STEAM GENERATOR, AND CEM SYSTEMS FOR NOX, CO, AND O2</td>
</tr>
<tr>
<td>S-1131-1048-9</td>
<td>35 wells</td>
<td>3020-09 A</td>
<td>35</td>
<td>9.34</td>
<td>326.90</td>
<td>A</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 35 STEAM ENHANCED WELLS (OJAI, MELWOOD AND SESAME LEASES)</td>
</tr>
<tr>
<td>S-1131-1049-3</td>
<td>59,230 GAL FREE WATER KNOCKOUT</td>
<td>3020-05 D</td>
<td>1</td>
<td>185.00</td>
<td>185.00</td>
<td>A</td>
<td>59,230 GALLON FREE WATER KNOCKOUT VESSEL</td>
</tr>
<tr>
<td>S-1131-1050-3</td>
<td>59,000 GAL FWKO</td>
<td>3020-05 D</td>
<td>1</td>
<td>185.00</td>
<td>185.00</td>
<td>A</td>
<td>59,000 GALLON FREE WATER KNOCKOUT VESSEL (FWKO)</td>
</tr>
<tr>
<td>S-1131-1084-2</td>
<td>83 bhp</td>
<td>3020-10 A</td>
<td>1</td>
<td>80.00</td>
<td>80.00</td>
<td>A</td>
<td>83 BHP FORD MODEL CGS-649 4.5 LITER 6-CYLINDER NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR</td>
</tr>
<tr>
<td>S-1131-1085-4</td>
<td>83.3 MMBtu/hr flare</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, NATURAL GAS AUXILIARY FUEL, AND NATURAL GAS OR PROpane PILOT ASSEMBLY. RAMBLER LEASE</td>
</tr>
<tr>
<td>S-1131-1086-6</td>
<td>83,300 kBTu/hr flare</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY, OPERATED AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD</td>
</tr>
<tr>
<td>S-1131-1087-4</td>
<td>83.3 MMBtu/hr fuel burning equipment</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROpane PILOT ASSEMBLY OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD</td>
</tr>
</tbody>
</table>
**Detailed Facility Report**
For Facility=1131 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

<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>
<th>EQUIPMENT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1091-1</td>
<td>1650 gallons</td>
<td>3020-05 A</td>
<td>1</td>
<td>75.00</td>
<td>75.00</td>
<td>A</td>
<td>1650 GALLON TRANSPORTABLE CHEMICAL STORAGE TANK</td>
</tr>
<tr>
<td>S-1131-1097-10</td>
<td>1,806,000 Gallons</td>
<td>3020-05 G</td>
<td>1</td>
<td>382.00</td>
<td>382.00</td>
<td>A</td>
<td>1,806,000 GALLON FIXED ROOF CRUDE OIL SURGE TANK #8 SERVED BY VAPOR RECOVERY SYSTEM LISTED ON S-1131-598</td>
</tr>
<tr>
<td>S-1131-1106-14</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>TEOR OPERATION CONSISTING OF 40 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS WITH VAPOR CONTROL SYSTEM INCLUDING ELECTRIC COMPRESSOR(S) AND HIGH POINT SEPARATOR(S) CONNECTED TO STATION 36 PRODUCTION LINE (S-1131-598), FLARE S-1131-1086, FLARE S-1131-1087 OR FLARE S-1131-1108</td>
</tr>
<tr>
<td>S-1131-1108-1</td>
<td>83.0 MMBluhr</td>
<td>3020-02 H</td>
<td>1</td>
<td>1,030.00</td>
<td>1,030.00</td>
<td>A</td>
<td>83.0 MMBTUHR AIR ASSISTED LOW USE FLARE WITH AUTOMATIC IGNITION AND NATURAL GAS. PILOT ASSEMBLY OPERATED AT MULTIPLE SPECIFIED LOCATIONS WITHIN CHEVRON USA'S HEAVY OIL CENTRAL STATIONARY SOURCE</td>
</tr>
<tr>
<td>S-1131-1117-1</td>
<td>480 bhp</td>
<td>3020-10 D</td>
<td>1</td>
<td>479.00</td>
<td>479.00</td>
<td>A</td>
<td>480 HP CATERPILLAR MODEL C9 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR</td>
</tr>
<tr>
<td>S-1131-1119-1</td>
<td>Uplo 532 BHP</td>
<td>3020-10 D</td>
<td>1</td>
<td>479.00</td>
<td>479.00</td>
<td>A</td>
<td>EPA-TIER 3 CERTIFIED DIESEL-FIRED TRANSPORTABLE IC ENGINE UPTO 532 HP POWERING AN ELECTRICAL GENERATOR</td>
</tr>
</tbody>
</table>

Number of Facilities Reported: 1
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.

6. Permit specific comments on the following spreadsheet.

   Response: Responses to permit specific comments on the following spreadsheet.
<table>
<thead>
<tr>
<th>Permit #</th>
<th>Mod #</th>
<th>Cond. #</th>
<th>Condition/Equipment Description Text (as contained in preliminary notice)</th>
<th>Chevron Comments</th>
<th>District Response</th>
<th>Revisions (Strike-through/underline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-62 29</td>
<td>Na</td>
<td>62.5 MBH 1/HR NATURAL GAS FIRED C.C. NATCO STEAM GENERATOR (HSG 60-38) DSS 20038-79 WITH EL PASO REHEAT LIGHT, NORTH AMERICAN MODEL, LOW NOX BURNER, AND NORTH AMERICAN 6000 B.M.E.</td>
<td>Chevron is currently operating under S-1131-62-31</td>
<td>The proposed draft permit is based on S-1131-62-31.</td>
<td>No action taken.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>2</td>
<td>The permittance shall maintain a non-repeatable, unquantifiable mass or volumetric flow meter or each fuel line to the steam generator.</td>
<td>Use language from current operating permit, Mod 26. Condition: &quot;Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td>This condition has been replaced.</td>
<td>The permitted shall maintain a non-repeatable, unquantifiable mass or volumetric flow meter or each fuel line to the steam generator. Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>11</td>
<td>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.</td>
<td>Acceptable but prefer to delete &quot;natural gas combustion&quot; text as per current condition wording.</td>
<td>&quot;natural gas combustion&quot; has been removed.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppm) - EPA Method 7E or ARB Method 180; NOx (ISO 8569) - EPA Method 19; NOx (ppm) - EPA Method 18 or ARB Method 180; SOx (ISO 8569) - EPA Method 5 or ARB Method 60; or, for units using natural fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculate emissions. Fuel Gas Sulfur Content – EPA Method 11 or EPA Method 15 or ASTM D1952, ASTM D240, or gas sample analysis by double GC – Fuel Gas Sulfur – ASTM D1322 or D1945 in conjunction with ASTM D3598 or D3598 (Wet).</td>
<td>Acceptable, but prefer addition of ASTM D1945 as approved test method for fuel gas sulfur content.</td>
<td>ASTM D6228 has been added as an accepted test method for fuel gas sulfur.</td>
<td>The following test methods shall be used: NOx (ppm) - EPA Method 7E or ARB Method 180; NOx (ISO 8569) - EPA Method 19; CO (ppm) - EPA Method 10 or ARB Method 180; SOx (ISO 8569) - EPA Method 5 or ARB Method 60; or, for units using natural fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculate emissions. Fuel Gas Sulfur Content – EPA Method 11 or EPA Method 15 or ASTM D1952, ASTM D240, or gas sample analysis by double GC – Fuel Gas Sulfur – ASTM D1322 or D1945 in conjunction with ASTM D3598 or D3598 (Wet).</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>18</td>
<td>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 as a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 or 30-minute period by either taking a cumulative 15 or 30-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 or 30-minute period.</td>
<td>Acceptable, but prefer to replace &quot;permit-to-operate&quot; with &quot;Permit to Operate&quot;.</td>
<td>&quot;permit-to-operate&quot; has been replaced with &quot;Permit to Operate&quot;.</td>
<td>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 as a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 or 30-minute period by either taking a cumulative 15 or 30-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 or 30-minute period.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>24</td>
<td>Copies of all gas purchase contracts, supplier certifications, and test results to demonstrate 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 data on which unit is fed on specified non-certified fuel.</td>
<td>Requirements in this condition are already contained in proposed condition 725.</td>
<td>This condition has been deleted.</td>
<td>Copies of all gas purchase contracts, supplier certifications, and test results to demonstrate 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 data on which unit is fed on specified non-certified fuel.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-63 25</td>
<td>2</td>
<td>The operator shall maintain a non-repeatable, unquantifiable mass or volumetric flow meter for each fuel line to the steam generator.</td>
<td>Use language from current operating permit, Mod 26. Condition: &quot;Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td>This condition has been replaced.</td>
<td>The operator shall maintain a non-repeatable, unquantifiable mass or volumetric flow meter for each fuel line to the steam generator. Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.</td>
<td></td>
</tr>
<tr>
<td>S-1131-63 24</td>
<td>11</td>
<td>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.</td>
<td>Acceptable but prefer to delete &quot;natural gas combustion&quot; text as per current condition wording.</td>
<td>&quot;natural gas combustion&quot; has been removed.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
<td>Revisions (Strike-out/Underline)</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>---------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>S-1131-64</td>
<td>24</td>
<td>15</td>
<td>The following test methods shall be used: NOx (gpm) - EPA Method 7E or ARB Method 100; NOx (b0m3/lb/hr) - EPA Method 19; CO (gpm) - EPA Method 19 or ARB Method 100; SOx (b0m3/lb/hr) - EPA Method 6; GC, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 13 or ASTM D1322; D3246; D4184, or grab sample analysis by double GC; Fuel Gas 111V - ASTM D1326 or D1945 in conjunction with ASTM D3388; PM10 (b0f/m3) - EPA Method 5 (both filterable and condensable), 201A and 202, or CARB Method 3; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content.</td>
<td>ASTM D6228 has been added as an approved test method for fuel gas sulfur.</td>
<td>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 shall be average over 15 consecutive minutes 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.</td>
</tr>
<tr>
<td>S-1131-64</td>
<td>24</td>
<td>18</td>
<td>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 shall be average over 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.</td>
<td>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 shall be average over 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-64</td>
<td>24</td>
<td>24</td>
<td>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 data on the unit's fuel on any non-certified fuel.</td>
<td>Requirements in this condition are already contained in proposed condition 25.</td>
<td>This condition has been deleted.</td>
<td>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 data on the unit's fuel on any non-certified fuel.</td>
</tr>
<tr>
<td>S-1131-66</td>
<td>23</td>
<td>11</td>
<td>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 results 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.</td>
<td>Use language from current operating permit, Mod 26, Condition 2. &quot;Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td>This condition has been replaced.</td>
<td>The permittee shall maintain a non-receivable, totalizing mass or volumetric flow meter on each fuel line to the steam generator. Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.</td>
</tr>
<tr>
<td>S-1131-66</td>
<td>23</td>
<td>15</td>
<td>The following test methods shall be used: NOx (gpm) - EPA Method 7E or ARB Method 10; NOx (b0m3/lb/hr) - EPA Method 19; CO (gpm) - EPA Method 19 or ARB Method 10; SOx (b0m3/lb/hr) - EPA Method 6; GC, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 13 or ASTM D1322; D3246; D4184, or grab sample analysis by double GC; Fuel Gas 111V - ASTM D1326 or D1945 in conjunction with ASTM D3388; PM10 (b0f/m3) - EPA Method 5 (both filterable and condensable), 201A and 202, or CARB Method 3; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content.</td>
<td>ASTM D6228 has been added as an approved test method for fuel gas sulfur.</td>
<td>The following test methods shall be used: NOx (gpm) - EPA Method 7E or ARB Method 100; NOx (b0m3/lb/hr) - EPA Method 19; CO (gpm) - EPA Method 19 or ARB Method 100; SOx (b0m3/lb/hr) - EPA Method 6; GC, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 13 or ASTM D1322; D3246; D4184; ASTM D6228, or grab sample analysis by double GC; Fuel Gas 111V - ASTM D1326 or D1945 in conjunction with ASTM D3388; PM10 (b0f/m3) - EPA Method 5 (both filterable and condensable), 201A and 202, or CARB Method 3; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4.</td>
</tr>
<tr>
<td>S-1131-66</td>
<td>23</td>
<td>18</td>
<td>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 shall be average over 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.</td>
<td>Acceptable, but prefer to replace &quot;permit-to-operate&quot; with &quot;Permit to Operate&quot;.</td>
<td>&quot;permit-to-operate&quot; has been replaced with &quot;Permit to Operate&quot;.</td>
<td>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 shall be average over 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.</td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description</td>
<td>Test (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------</td>
<td>---------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>S-1131-66</td>
<td>23</td>
<td>24</td>
<td>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 data on which unit is fired on an non-certified fuel.</td>
<td>Requirements in this condition are already contained in proposed condition #25.</td>
<td>This condition has been deleted.</td>
<td>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 data on which unit is fired on a non-certified fuel.</td>
</tr>
<tr>
<td>S-1131-67</td>
<td>24</td>
<td>2</td>
<td>The permittance shall maintain a non-volatile, totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>The language from current operating permit, Mod 2b, Condition 2, &quot;Steam generator shall be equipped with operational gas volumetric flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td>This condition has been replaced.</td>
<td>The permittance shall maintain a non-volatile, totalizing mass or volumetric flow meter in each fuel line to the steam generator. Steam volumetric meter shall be equipped with operational gas volumetric flow meter that measures the fuel gas volume sent to the steam generator.</td>
</tr>
<tr>
<td>S-1131-67</td>
<td>24</td>
<td>11</td>
<td>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 test shall be conducted no less than once every thirty-six (36) months.</td>
<td>Acceptable before deleting &quot;natural gas combustion&quot; test as per current condition wording.</td>
<td>Acceptable before deleting &quot;natural gas combustion&quot; test as per current condition wording.</td>
<td>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 test shall be conducted no less than once every thirty-six (36) months.</td>
</tr>
<tr>
<td>S-1131-67</td>
<td>24</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppm) - EPA Method 7C or AIR Method 260; SOx (ppm) - EPA Method 19; CO ppm - EPA Method 19 or AIR Method 270; N2O (ppm) - EPA Method 6, 6G, B, C or AIR Method 270; or, for units using natural gas fed to sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 or equivalent emission: Fuel Gas Sulfur Content - EPA Method 270 or EPA Method 6 or EPA Method 2; SO2, NOx, and CO ppm - EPA Method 19 or AIR Method 260; or, for units using natural gas fuel for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 or equivalent emission: Fuel Gas Sulfur Content - EPA Method 270 or EPA Method 6, 6G, B, C or AIR Method 2; SO2, NOx, and CO ppm - EPA Method 19 or AIR Method 260; or, for units using natural gas fuel for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 or equivalent emission: Fuel Gas Sulfur Content - EPA Method 270 or EPA Method 6, 6G, B, C or AIR Method 2;</td>
<td>ASTM D4228 has been added as an approved test method for fuel gas sulfur</td>
<td>ASTM D4228 has been added as an approved test method for fuel gas sulfur.</td>
<td></td>
</tr>
<tr>
<td>S-1131-67</td>
<td>24</td>
<td>18</td>
<td>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 test shall be conducted no less than once every thirty-six (36) months.</td>
<td>Acceptable, but prefer to change &quot;permittance-to-operate&quot; to &quot;Permition-to-Operate&quot;</td>
<td>Acceptable, but prefer to change &quot;permittance-to-operate&quot; to &quot;Permition-to-Operate&quot;.</td>
<td>All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representing normal operation or conditions specified in the Permit to Operate. The sample shall be collected, maintained, and operated in accordance with the manufacturer's specifications and recommended frequency, or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced over the 15 consecutive-minute period.</td>
</tr>
<tr>
<td>S-1131-67</td>
<td>24</td>
<td>24</td>
<td>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 data on which unit is fired on a non-certified fuel.</td>
<td>Requirements in this condition are already contained in proposed condition #25.</td>
<td>This condition has been deleted.</td>
<td>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 data on which unit is fired on a non-certified fuel.</td>
</tr>
<tr>
<td>S-1131-67</td>
<td>25</td>
<td>2</td>
<td>The permittance shall maintain a non-volatile, totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>The language from current operating permit, Mod 2b, Condition 2, &quot;Steam generator shall be equipped with operational gas volumetric flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td>This condition has been replaced.</td>
<td>The permittance shall maintain a non-volatile, totalizing mass or volumetric flow meter in each fuel line to the steam generator. Steam volumetric meter shall be equipped with operational gas volumetric flow meter that measures the fuel gas volume sent to the steam generator.</td>
</tr>
<tr>
<td>S-1131-68</td>
<td>23</td>
<td>11</td>
<td>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 test shall be conducted no less than once every thirty-six (36) months.</td>
<td>Acceptable before deleting &quot;natural gas combustion&quot; test as per current condition wording.</td>
<td>Acceptable before deleting &quot;natural gas combustion&quot; test as per current condition wording.</td>
<td>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 test shall be conducted no less than once every thirty-six (36) months.</td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
<td>Revisions (Strike-out/Underline)</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>S-1131-68</td>
<td>23</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (b/r/m/b) - EPA Method 19; CO (ppm) - EPA Method 19 or ARB Method 100; SO2 (b/r/m/b) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1172, D3246, D4498, or grab sample analysis by double GC; Fuel Gas HI/IV - ASTM D1324 or D3545 in conjunction with ASTM D3588, PM10 (b/r/m/b) - EPA Method 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Velocity (Rm/s) - EPA Method 2; Stack Gas Moisture Content (wt%) - EPA Method 4.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content. ASTM D6228 has been added as an accepted test method for fuel gas sulfur.</td>
<td>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.</td>
<td>The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (b/r/m/b) - EPA Method 19; CO (ppm) - EPA Method 19 or ARB Method 100; SO2 (b/r/m/b) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1172, D3246, D4498, D3545, or grab sample analysis by double GC; Fuel Gas HI/IV - ASTM D1324 or D3545 in conjunction with ASTM D3588, PM10 (b/r/m/b) - EPA Method 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Velocity (Rm/s) - EPA Method 2; Stack Gas Moisture Content (wt%) - EPA Method 4.</td>
</tr>
<tr>
<td>S-1131-68</td>
<td>23</td>
<td>18</td>
<td>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.</td>
<td>Acceptable, but prefer to replace “permit-to-operate” with “Permit to Operate”. “Permit-to-operate” has been replaced with “Permit to Operate”.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>S-1131-68</td>
<td>23</td>
<td>24</td>
<td>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 fuels on which unit is fired on non-certified fuel.</td>
<td></td>
<td>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 fuels on which unit is fired on non-certified fuel.</td>
<td></td>
</tr>
<tr>
<td>S-1131-69</td>
<td>23</td>
<td>2</td>
<td>The permits shall maintain a non-recessing, totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>Use language from current operating permit. Mod 24. Condition 2. &quot;Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.&quot;</td>
<td></td>
<td>The permits shall maintain a non-recessing, totalizing mass or volumetric flow meter in each fuel line to the steam generator. Steam generator shall be equipped with operational gas volume flow meter that measures the fuel gas volume sent to the steam generator.</td>
</tr>
<tr>
<td>S-1131-69</td>
<td>23</td>
<td>11</td>
<td>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 net test less than 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.</td>
<td>Acceptable but prefer to delete &quot;natural gas combustion&quot; test as per current condition wording. &quot;Natural gas combustion&quot; has been removed</td>
<td>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 net test less than 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.</td>
<td></td>
</tr>
<tr>
<td>S-1131-69</td>
<td>23</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (b/r/m/b) - EPA Method 19; CO (ppm) - EPA Method 19 or ARB Method 100; SO2 (b/r/m/b) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1172, D3246, D4498, or grab sample analysis by double GC; Fuel Gas HI/IV - ASTM D1324 or D3545 in conjunction with ASTM D3588, PM10 (b/r/m/b) - EPA Method 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Velocity (Rm/s) - EPA Method 2; Stack Gas Moisture Content (wt%) - EPA Method 4.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content. ASTM D6228 has been added as an accepted test method for fuel gas sulfur.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-69</td>
<td>23</td>
<td>18</td>
<td>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.</td>
<td>Acceptable, but prefer to replace “permit-to-operate” with “Permit to Operate”.</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notice)</td>
<td>Checking Comments</td>
<td>Direct Response</td>
<td>Revisions (Strike-out/Underline)</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>S-1131-69</td>
<td>23</td>
<td>24</td>
<td>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 and average amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any un-fired fuel.</td>
<td>This condition has been deleted.</td>
<td>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 and average amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any un-fired fuel.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>2</td>
<td>The permittee shall maintain a non-releasable totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>This condition has been replaced.</td>
<td>The permittee shall maintain a non-releasable totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>Strike-through.</td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>11</td>
<td>Source testing to measure sulfur gas-consumption 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-two (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.</td>
<td>Acceptable, but prefer to delete &quot;sulfur gas-consumption NOx and CO emissions&quot; test every four (4) years.</td>
<td>&quot;Sulfur gas consumption&quot; test has been removed.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (ppmBis) - EPA Method 19, CO (ppmv) - EPA Method 19, SO2 (ppmv) - EPA Method 36, CO2 (ppmv) - EPA Method 36, or for units using gaseous fuels scrubbed for sulfur pre-combustion, fuel gas sulfur content method EPA Method 31, or for units using coal containing less than 0.30% S, fuel gas sulfur content method EPA Method 31, all as amplified in the EPA Method 31 or ASTM E1202-01.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content.</td>
<td>ASTM D6228 has been added as an approved test method for fuel gas sulfur content.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>18</td>
<td>All alternate monitoring parameter emission readings shall be taken within the unit operating cycle or in accordance with the manufacturer's specifications and recommendations or approved by the APCO.</td>
<td>Acceptable, but prefer to replace &quot;permit-to-operate&quot; with &quot;Permit-to-Operate&quot;.</td>
<td>Permit-to-operate has been replaced with &quot;Permit-to-Operate&quot;.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>24</td>
<td>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 and average amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any un-fired fuel.</td>
<td>Requirements in this condition are already contained in proposed condition #25.</td>
<td>This condition has been deleted.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>2</td>
<td>The permittee shall maintain a non-releasable totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>This condition has been replaced.</td>
<td>The permittee shall maintain a non-releasable totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td></td>
</tr>
<tr>
<td>S-1131-70</td>
<td>23</td>
<td>11</td>
<td>Source testing to measure sulfur gas-consumption 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-two (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.</td>
<td>Acceptable, but prefer to delete &quot;sulfur gas-consumption NOx and CO emissions&quot; text as per current conditions wording.</td>
<td>&quot;Sulfur gas consumption&quot; has been removed.</td>
<td></td>
</tr>
</tbody>
</table>

C5
<table>
<thead>
<tr>
<th>Permit #</th>
<th>Mod #</th>
<th>Cond. #</th>
<th>Condition/Equipment Description Text (as contained in preliminary notice)</th>
<th>Chevron Comments</th>
<th>District Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-73</td>
<td>23</td>
<td>15</td>
<td>The following test methods shall be used: NOx (ppmv) - EPA Method 7E, or ARB Method 100; NOx (B/H/N/H4u) - EPA Method 1B; CO (ppmv) - EPA Method 10 or ARB Method 10B; SOx (B/H/N/H4u) - EPA Method 6G; 8 or ARB Method 100B; or for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 13 or ASTM D1272, D2246, D4984, or grab sample analysis by double GC Fuel Gas HTHI - ASTM D382 or D1494 in conjunction with ASTM D3538 or PM10 (B/Hc) - EPA Methods 3 (both filterable and condensible), 201A and 202.</td>
<td>Acceptable, but prefer addition of ASTM D6228 as approved test method for fuel gas sulfur content.</td>
<td>All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operation or conditions specified in the permit-to-operate. The analyzers shall be calibrated, maintained, and operated in accordance with the manufacturers' specifications and recommendations or a protocol approved by the APCO. Emission readings shall be taken over a 15 consecutive-five minute period by either taking a cumulative 15 consecutive-five minute sample reading or by taking at least 5 (5) readings, evenly spaced out over the 15 consecutive five minute period.</td>
</tr>
<tr>
<td>S-1131-73</td>
<td>23</td>
<td>18</td>
<td>All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operation or conditions specified in the permit-to-operate. The analyzers shall be calibrated, maintained, and operated in accordance with the manufacturers' specifications and recommendations or a protocol approved by the APCO. Emission readings shall be taken over a 15 consecutive five minute period by either taking a cumulative 15 consecutive-five minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-five minute period.</td>
<td>Acceptable, but prefer to replace &quot;permits-to-operate&quot; with &quot;Permit to Operate&quot;.</td>
<td>All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operation or conditions specified in the permit-to-operate. The analyzers shall be calibrated, maintained, and operated in accordance with the manufacturers' specifications and recommendations or a protocol approved by the APCO. Emission readings shall be taken over a 15 consecutive-five minute period by either taking a cumulative 15 consecutive-five minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-five minute period.</td>
</tr>
<tr>
<td>S-1131-73</td>
<td>23</td>
<td>24</td>
<td>Copies of all 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 consumed and all dates on which unit is fired on any non-certificated fuel.</td>
<td>Requirements in this condition are already contained in proposed condition #25.</td>
<td>Copies of all 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 consumed and all dates on which unit is fired on any non-certificated fuel.</td>
</tr>
<tr>
<td>S-1131-78</td>
<td>23</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HG-1935, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (CANTFIELD LEASE).</td>
<td>Chevron is currently operating under S-1131-78/25</td>
<td>Change Orders from Compliance indicating the ATC Chevron status they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-82</td>
<td>23</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HG-1938, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER, A FLUE GAS RECIRCULATION FGR SYSTEM AND NORTH AMERICAN OPTIMIZER - SI LOWER.</td>
<td>Chevron is currently operating under ATC S-1131-82-28</td>
<td>Chevron has been reviewed and remain on the current operating permit.</td>
</tr>
<tr>
<td>S-1131-95</td>
<td>23</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HG-1931, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME LOW-NOX BURNER, FIVE (5) FLUE GAS RECIRCULATION FGR SYSTEM AND NORTH AMERICAN OPTIMIZER - SR LOWER.</td>
<td>Chevron is currently operating under ATC S-1131-95/23</td>
<td>Compliance Generated a Change Order 9/22/21. Removal evaluation has been reviewed to consider this permit as the current operating permit.</td>
</tr>
<tr>
<td>S-1131-98</td>
<td>23</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HG-1934, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION</td>
<td>Chevron is currently operating under ATC S-1131-98-31</td>
<td>Compliance Generated a Change Order 9/22/21. Removal evaluation has been reviewed to consider this permit as the current operating permit.</td>
</tr>
<tr>
<td>S-1131-99</td>
<td>23</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HG-1935, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION</td>
<td>Chevron is currently operating under ATC S-1131-99-32</td>
<td>Compliance Generated a Change Order 9/22/21. Removal evaluation has been reviewed to consider this permit as the current operating permit.</td>
</tr>
<tr>
<td>S-1131-99</td>
<td>26</td>
<td>NA</td>
<td>62.5 MM BTU/HOUR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HG-1936, 590 BC, DSS 2060-60-79) WITH A NORTH AMERICAN MAGNA FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION</td>
<td>The proposed draft permit is based on S-1131-99-33</td>
<td>The current Permit to Operate is PTO S-1131-99-33</td>
</tr>
<tr>
<td>S-1131-508</td>
<td>23</td>
<td>15</td>
<td>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, 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 22.</td>
<td>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, 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met.</td>
</tr>
<tr>
<td>Permit #</td>
<td>M#</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Test (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>---------</td>
<td>----</td>
<td>--------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>S-1131-598</td>
<td>24</td>
<td>39</td>
<td>All records required to be maintained for this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request.</td>
<td>Duplicate of Condition 43.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-608</td>
<td>21</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-608</td>
<td>21</td>
<td>25</td>
<td>All records required to be maintained for this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-613</td>
<td>19</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-613</td>
<td>19</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-629</td>
<td>11</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-629</td>
<td>11</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-630</td>
<td>11</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-630</td>
<td>11</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-638</td>
<td>11</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-638</td>
<td>11</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-641</td>
<td>11</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-641</td>
<td>11</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-650</td>
<td>01</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-650</td>
<td>01</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-651</td>
<td>01</td>
<td>18</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-651</td>
<td>01</td>
<td>25</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>S-1131-725</td>
<td>4</td>
<td>43</td>
<td>All records required by this permit shall be retained on site for a period of at least 5 years and shall be made available for inspection upon request.</td>
<td>Duplicate of Condition 33.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Test (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>S-1131-724</td>
<td>4</td>
<td>45</td>
<td>This unit is not associated with loading at a bulk gasoline terminal (as defined in 40 CFR 269.501). Therefore, the requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements.</td>
<td>Proposed condition contains a type symbol after &quot;CFP&quot;. The existing condition text (S-1131-724:4-48) or remove type.</td>
<td>Symbol has been removed.</td>
</tr>
<tr>
<td>S-1131-858</td>
<td>12</td>
<td>0</td>
<td>NON-COMPLIANT DORMANT 62.5 MBTU/HR NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR (HISGF 50-51; DISP 1965-75) WITH FUEL GAS RECIRCULATION. NORTH AMERICAN MODEL #5131-HUG-62.5 BURNER, AND NORTH AMERICAN OPTIMIZER - CANFIELD LEASE</td>
<td>Adding closing parenthesis after &quot;Lease&quot;</td>
<td>Parentheses added.</td>
</tr>
<tr>
<td>S-1131-859</td>
<td>13</td>
<td>NA</td>
<td>62.5 MBTU/HR NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR (HISGF 50-51; DISP 1965-75) WITH A NORTH AMERICAN MODEL GLE MAGNA-FAME LOW NOX BURNER, FUEL GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER)</td>
<td>Chevron is currently operating under ATC S-1131-859-16</td>
<td>Compliance generated a change order 0292711. Renewal evaluation has been revised to consider this permit to the current operating permit.</td>
</tr>
<tr>
<td>S-1131-877</td>
<td>13</td>
<td>NA</td>
<td>62.5 MBTU/HR STRUTHERS NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR #1 WITH 111 CFH, NORTH AMERICAN MODEL GLE-4231 BURNER AND O2 CONTROLLER (CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-877-17</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-879</td>
<td>18</td>
<td>NA</td>
<td>62.5 MBTU/HR STRUTHERS NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW NOX BURNER WITH FGR AND AN O2 CONTROLLER (#70 CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-879-22</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-880</td>
<td>12</td>
<td>NA</td>
<td>62.5 MBTU/HR STRUTHERS NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR #114 WITH A NORTH AMERICAN MODEL GLE-6231 LOW NOX BURNER AND FUEL GAS RECIRCULATION (CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-880-16</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-881</td>
<td>13</td>
<td>NA</td>
<td>62.5 MBTU/HR STRUTHERS NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FAME GLE LOW NOX BURNER WITH FUEL GAS RECIRCULATION (FGR) AND AN O2 CONTROLLER (CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-881-17</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-883</td>
<td>13</td>
<td>NA</td>
<td>62.5 MBTU/HR STRUTHERS NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR #144 EQUIPPED WITH NORTH AMERICAN MAGNA-FAME GLE ULTRA LOW NOX BURNER AND FUEL GAS RECIRCULATION (CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-883-17</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-884</td>
<td>15</td>
<td>NA</td>
<td>62.5 MBTU/HR NATURAL GAS VAPOR RECOVERY GAS FIRED STEAM GENERATOR #194 EQUIPPED WITH NORTH AMERICAN MAGNA-FAME GLE ULTRA LOW NOX BURNER AND FUEL GAS RECIRCULATION (CENTRAL PLANT)</td>
<td>Chevron is currently operating under S-1131-884-19</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-885</td>
<td>21</td>
<td>38</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 33.</td>
<td></td>
</tr>
<tr>
<td>S-1131-885</td>
<td>21</td>
<td>41</td>
<td>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.</td>
<td>Duplicate of Condition 44.</td>
<td></td>
</tr>
<tr>
<td>S-1131-886</td>
<td>18</td>
<td>30</td>
<td>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.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 25.</td>
<td></td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Ctnk. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notes)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------</td>
<td>-----------------------------------------------------------------</td>
<td>---------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>S-1131-891</td>
<td>17</td>
<td>36</td>
<td>Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TYP test of the organically liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.5.9 of Rule 4623 are met.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 25.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 25.</td>
</tr>
<tr>
<td>S-1131-892</td>
<td>17</td>
<td>30</td>
<td>Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TYP test of the organically liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.5.9 of Rule 4623 are met.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 25.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 25.</td>
</tr>
<tr>
<td>S-1131-901</td>
<td>14</td>
<td>NA</td>
<td>YEOR OPERATIONS WITH 116 STEAM-ENHANCED OIL PRODUCTION WELLS (116 STEAM DRIVE WELLS / 75 CYCLIC WELLS)</td>
<td>Chevron is currently operating under S-1131-901-17.</td>
<td>Change Orders from Compliance indicating the ACI Chevron stores they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-902</td>
<td>16</td>
<td>NA</td>
<td>62.5 MM IHUBR STRUTHERS NATURAL GAS FOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (910) WITH A 2000-2/500 CU FT PRESSURE GAS SYSTEM (FRG) AND A CONTROLBOILER</td>
<td>Chevron is currently operating under S-1131-902-B20</td>
<td>Change Orders from Compliance indicating the ACI Chevron stores they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-903</td>
<td>14</td>
<td>NA</td>
<td>YEOR OPERATIONS WITH 190 STEAM-ENHANCED OIL PRODUCTION WELLS (190 STEAM DRIVE WELLS/15 CYCLIC WELLS)</td>
<td>Chevron is currently operating under S-1131-903-17.</td>
<td>Change Orders from Compliance indicating the ACI Chevron stores they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>7</td>
<td>2</td>
<td>The permittee shall maintain a non-reusable, totalizing mass or volumetric flow meter in each fuel line to the steam generator.</td>
<td>Use language from current operating permit, Eqs 26.</td>
<td>This condition has been replaced.</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>9</td>
<td>11</td>
<td>Source testing to measure ambient gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance over a (3) consecutive period source test, the unit shall be tested not less than once every thirty-six (36) months. If the results of the 36-month source test demonstrates that the unit does not meet its applicable emission limits, the source testing frequency shall revert to at least every twelve (12) months.</td>
<td>Acceptable but permit to delete &quot;ambient gas combustion&quot; test as per current condition wording.</td>
<td>Natural gas combustion has been removed.</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>17</td>
<td>12</td>
<td>The following test methods shall be used: NOx (ppmv) = EPA Method 7E or ARB Method 100; NOx (ppmB) = EPA Method 19; CO (ppmv) = EPA Method 10; or, for units using gas-oil fuel, certified for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 for sulfur content.</td>
<td>Acceptable, but prefer addition of ASTM D6288 as approved test method for fuel gas sulfur content.</td>
<td>ASTM D6288 has been added as an approved test method for fuel gas sulfur.</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>17</td>
<td>18</td>
<td>All alternate monitoring parameters emission readings shall be taken with the unit operating either at conditions representative of normal operations at 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 APCC. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading for a total of five minutes, and then averaging the results over the 15 consecutive minutes.</td>
<td>Acceptable, but prefer to replace &quot;permits-to-operate&quot; with &quot;permits-tooperate&quot;.</td>
<td>&quot;permits-to-operate&quot; has been replaced with &quot;permits-to-operate&quot;.</td>
</tr>
<tr>
<td>S-1131-912</td>
<td>34</td>
<td>7</td>
<td>Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance of the conditions of this permit shall be maintained. The operator shall record daily amounts and types of fuel(s) combusted and all fees on which units are taxed on any non-certified fuel.</td>
<td>Requirements in this condition are already contained in proposed condition #12.</td>
<td>This condition has been deleted.</td>
</tr>
<tr>
<td>Permit #</td>
<td>Mod #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>S-1131-917</td>
<td>10</td>
<td>NA</td>
<td>FOR OPERATION WITH 143 33-STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS</td>
<td>Chevron is currently operating under S-1131-917-91</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-932</td>
<td>10</td>
<td>NA</td>
<td>THERMALLY ENHANCED OIL PRODUCTION (Operation PSE A-1 A-2) SERVING 165 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXHAUST EQUIPMENT (See A LEASE)</td>
<td>Chevron is currently operating under S-1131-932-91</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-944</td>
<td>9</td>
<td>NA</td>
<td>THERMALLY ENHANCED OIL PRODUCTION (Operation PSE B-1 B-2) SERVING 75 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXHAUST EQUIPMENT (See B LEASE)</td>
<td>Chevron is currently operating under S-1131-944-91</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-987</td>
<td>10</td>
<td>NA</td>
<td>62.5 MBTU/HR THERMOCAT NATURAL GAS CASING GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL, GLE MAGNA-FLAME LOW NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (R-6, DISP 2747-81)</td>
<td>Chevron is currently operating under ATC S-1131-987-12</td>
<td>Compliance generated a change order 922/01. Renewal evaluation has been revised to consider this permit as the current operating permit.</td>
</tr>
<tr>
<td>S-1131-995</td>
<td>10</td>
<td>NA</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 35 STEAM DRIVE WELLS WITH CLOSED CASING VENTS</td>
<td>Chevron is currently operating under S-1131-995-12</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-996</td>
<td>10</td>
<td>NA</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 40 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXHAUST EQUIPMENT (KCL 2)</td>
<td>Chevron is currently operating under S-1131-996-12</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-997</td>
<td>10</td>
<td>NA</td>
<td>62.5 MBTU/HR THERMOTRONIC NATURAL GAS CASING GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL, GLE MAGNA-FLAME LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN OXYGEN CONTROLLER/ANALYZER (ANGUS 2, DISP 4998-81)</td>
<td>Chevron is currently operating under ATC S-1131-997-12</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-999</td>
<td>9</td>
<td>NA</td>
<td>62.5 MBTU/HR C.E. NATCO NATURAL GAS CASING GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL, GLE MAGNA-FLAME LOW NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (FGR) SYSTEM (RAHBE FR-7, DISP 12866-82)</td>
<td>Chevron is currently operating under ATC S-1131-999-11</td>
<td>Renewal evaluation has been revised to consider this permit as the current operating permit.</td>
</tr>
<tr>
<td>S-1131-1007</td>
<td>9</td>
<td>NA</td>
<td>THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 170 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM (March/April Lease), WILMAR LEASE</td>
<td>Chevron is currently operating under S-1131-1007-10</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-1033</td>
<td>12</td>
<td>NA</td>
<td>150 OPERATING WITH 40 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS AND PRODUCTION ROUTED EXCLUSIVELY TO VAPOR-CONTROLLED TANKS</td>
<td>Chevron is currently operating under S-1131-1033-15</td>
<td>Change Orders from Compliance indicating the ATC Chevron states they are operating under did not exist when this project went to notice.</td>
</tr>
<tr>
<td>S-1131-1037</td>
<td>9</td>
<td>13</td>
<td>NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmv @ 15% O2. Proposed condition incorrectly changes NSPS limit from 155 ppmv to 150 ppmv. The limit of 155 ppmv was established per the formula listed in NSPS in prior application submittals and should not be lowered to 150 ppmv.</td>
<td>Chevron is currently operating under S-1131-1037-10</td>
<td>Based on recently amended Salogram G1 calculation and no bound NOx (per Chevron) the hourly NOx limit is 150 ppmv.</td>
</tr>
<tr>
<td>Permit #</td>
<td>Mud #</td>
<td>Cond. #</td>
<td>Condition/Equipment Description Text (as contained in preliminary notice)</td>
<td>Chevron Comments</td>
<td>District Response</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>---------</td>
<td>--------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>S-1131-1037</td>
<td>9</td>
<td>26</td>
<td>The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 1H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 5; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
<td>Condition revised as suggested except HIV and LH test methods retained.</td>
<td>The following test methods shall be used: NOx - EPA Method 7E or 20 or C284 Method 101; CO - EPA Method 10 or 1H; BAAQMD ST-3H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 5; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
</tr>
<tr>
<td>S-1131-1037</td>
<td>9</td>
<td>33</td>
<td>The following test methods shall be used: NOx - EPA Method 10 or 1H; CO - BAAQMD ST-3H; O2 - EPA Method 3; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
<td>Condition revised as suggested except HIV and LH test methods retained.</td>
<td>The following test methods shall be used: NOx - EPA Method 10 or 1H; CO - BAAQMD ST-3H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 3; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
</tr>
<tr>
<td>S-1131-1037</td>
<td>9</td>
<td>10</td>
<td>Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O2) concentrations shall be determined using EPA Method 3.</td>
<td>This condition has been deleted.</td>
<td></td>
</tr>
<tr>
<td>S-1131-1037</td>
<td>9</td>
<td>14</td>
<td>NO2 concentration (one hour average) shall not exceed the NSPS limit of 150 ppm at 15% O2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1131-1038</td>
<td>8</td>
<td>33</td>
<td>The following test methods shall be used: NOx - EPA Method 10 or 1H; CO - EPA Method 10 or 1H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 3; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
<td>Condition revised as suggested except HIV and LH test methods retained.</td>
<td></td>
</tr>
<tr>
<td>S-1131-1038</td>
<td>8</td>
<td>14</td>
<td>The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 1H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 3; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
<td>Based on recently amended Subpart GG calculation and no fuel bound NOx (per Criteria) under new NSPS limit is 150 ppm.</td>
<td></td>
</tr>
<tr>
<td>S-1131-1038</td>
<td>8</td>
<td>14</td>
<td>The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 1H; Ammonia - BAAQMD ST-3H; O2 - EPA Method 3; S, A, or 20; and HIV and LH - ASTM D5358-89, ASTM D126-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit.</td>
<td>Based on recently amended Subpart GG calculation and no fuel bound NOx (per Criteria) under new NSPS limit is 150 ppm.</td>
<td></td>
</tr>
</tbody>
</table>

The test results shall be compared to the applicable NOX emission limit and a reference test data sheet for the RATA of the CESM. The requirements as set by these test results are waived under this option.
<table>
<thead>
<tr>
<th>Permit #</th>
<th>Cond. #</th>
<th>Condition/Equipment Description Text (as contained in preliminary notice)</th>
<th>Chevron Comments</th>
<th>District Response</th>
<th>Revisions (Strike-out/Underline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1131-1085</td>
<td>5</td>
<td>28</td>
<td>All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request.</td>
<td>Duplicate requirements of Proposed Condition 29.</td>
<td>Duplicate requirements of Proposed Condition 29.</td>
</tr>
<tr>
<td>S-1131-1086</td>
<td>3</td>
<td>NA</td>
<td><strong>83.3 MMHUGIR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY, OPERATED AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD</strong></td>
<td>Chevron is currently operating under ATC S-1131-1086-7</td>
<td>Compliance generated a change order #272041. Renewal evaluation has been revised to consider this permit at the current operating permit.</td>
</tr>
<tr>
<td>S-1131-1087</td>
<td>2</td>
<td>NA</td>
<td><strong>83.3 MMHUGIR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD.</strong></td>
<td>Chevron is currently operating under ATC S-1131-1087-5</td>
<td>Compliance generated a change order #272041. Renewal evaluation has been revised to consider this permit at the current operating permit.</td>
</tr>
<tr>
<td>S-1131-1097</td>
<td>9</td>
<td>18</td>
<td>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 6.2.1.3.5 of Rule 4623 are met.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 12.</td>
<td>Tank is not uncontrolled, and representative testing is addressed in Proposed Condition 12.</td>
</tr>
<tr>
<td>S-1131-1098</td>
<td>9</td>
<td>21</td>
<td>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.</td>
<td>Duplicate of Condition 33.</td>
<td>Duplicate of Condition 33.</td>
</tr>
<tr>
<td>S-1131-1108</td>
<td>2</td>
<td>NA</td>
<td><strong>83.6 MMHUGIR AIR ASSISTED LOW USE FLARE WITH AUTOMATIC IGNITION AND NATURAL GAS PILOT ASSEMBLY OPERATED AT MULTIPLE SPECIFIED LOCATIONS WITHIN CHEVRON USA'S HEAVY OIL CENTRAL STATIONARY SOURCE</strong></td>
<td>Chevron is currently operating under ATC S-1131-1108-3</td>
<td>Compliance generated a change order #272041. Renewal evaluation has been revised to consider this permit as the current operating permit.</td>
</tr>
</tbody>
</table>
ATTACHMENT D

EPA Comments and District Response
EPA Comments and District Response

A generic comment regarding the District's analysis and preliminary decision were submitted by EPA. A copy of the December 5, 2011 EPA email containing these comments is available at the District.

**EPA COMMENT**

1. In Section VIII.EE of the Application Evaluation, the District discusses Compliance Assurance Monitoring (CAM) applicability for vapor control systems. The District determines that the systems are “inherent process equipment” and are therefore not subject to CAM requirements. EPA disagrees.

**DISTRICT RESPONSE**

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 a 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.
ATTACHMENT E

Final Renewed Title V Operating Permit
San Joaquin Valley
Air Pollution Control District

FACILITY: S-1131-0-2
EXPIRATION DATE: 02/28/2017

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

4. 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

5. 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 Rules 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit

6. 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

7. 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

8. 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

9. 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

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 CENTRAL, KERN COUNTY, CA
5-1131-0-2 Jan 17 2012 8:58AM - RICHARD
10. 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

11. 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

12. 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

13. 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

14. 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

15. 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

16. 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

17. 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

18. 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

19. 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

20. 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

21. 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

22. 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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
23. 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 (11/15/01), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101] Federally Enforceable Through Title V Permit

24. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1, 5.2, 5.5, and 5.7] Federally Enforceable Through Title V Permit

25. All VOC-containing materials for architectural coatings 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

26. 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

27. 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

28. 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 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

29. 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 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit

30. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8021 and 8011] Federally Enforceable Through Title V Permit

31. 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 or Rule 8011. [District Rules 8031 and 8011] Federally Enforceable Through Title V Permit

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

33. 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 or Rule 8011. [District Rules 8051 and 8011] Federally Enforceable Through Title V Permit

34. 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 or Rule 8011. [District Rules 8061 and 8011] Federally Enforceable Through Title V Permit

35. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 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 or Rule 8011. [District Rules 8071 and 8011] 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.
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, 9.15] 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 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), 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 compliance with the following applicable requirements: SJUVAPCD 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 (9/17/97); 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. 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. All permits for facilities S-88, S-511, S-1127, and S-1131 are included in ChevronTexaco Inc.'s Heavy Oil Central stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit

45. On December 31, 2002, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.007 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4305, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL KERN COUNTY, CA
S-1131-62-29 Jan 17 2013 335AM-RICKARDS
30. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.1, 5.3] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-63-24

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt or a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-64-24
EXPIRATION DATE: 02/28/2017
SECTION: 05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-40; DIS# 20632-79) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.9 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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 so far as technologically possible. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 o. 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4326, 5.3] Federally Enforceable Through Title V Permit.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-65-25
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.001 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

8. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

9. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

11. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. 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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

15. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

17. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

19. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

20. 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

21. 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; or 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

22. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(y) 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
34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.3] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-66-23
EXPIRATION DATE: 02/28/2017
SECTION: 05   TOWNSHIP: 29S   RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C E. NATCO STEAM GENERATOR (HSG# 60-42; DIS# 20634-79; WITH FLUE GAS RECIRCULATION, NORTH AMERICAN GLE LOW-NOX BURNER AND NORTH AMERICAN OPTIMIZER. (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/secf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 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 operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppm) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppm) - EPA Method 10 or ARB Method 110; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 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 operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.017 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 no less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 130; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 15,858 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permits shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third-party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-70-23
SECTION: 05  TOWNSHIP: 29S  RANGE: 28E

EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-46; DIS# 20638-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits; 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur by combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D2588. PM10 (lb/sec) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4305, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit
PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201; and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.005 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown periods, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 20,258 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 eight consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/sec) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or A1B Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4365, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS: CONTINUE ON NEXT PAGE

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

31. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 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. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.108 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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

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

27. 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] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for the each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
34. The number of representative units source tested for NOX and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 69.40c 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

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

38. 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 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-78-23
SECTION: 19    TOWNSHIP: 28S    RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
- 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED C.E. NATCO STEAM GENERATOR (HSG# 60-69; DIS# 20610-79) WITH A NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS REIRCULATION (CANFIELD LEASE)

PERMIT UNIT REQUIREMENTS

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

2. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration for 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration for 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

3. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

5. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. Emissions from the steam generator shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu, 1.026 lb-SOx (as SO2)/MMBtu, 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
7. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 (or 0.0182 lb NOx/MMBtu), or 50 ppmvd CO @ 3% O2 (or 0.037 lb CO/MMBtu). [District Rules 2201, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

8. During start-up and shutdown, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb NOx/MMBtu or 0.084 lb CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb NOx/day, 9,965 lb NOx/yr, or 55.5 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. 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. Permits shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.3, and 4306, 5.3] Federally Enforceable Through Title V Permit

11. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

12. Permits shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306, 6.1] Federally Enforceable Through Title V Permit

13. Permits shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

14. Permittees shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

15. Permittees shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

17. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; and 4306, 5.5] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588; PM10 (lb/scl) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

23. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

25. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

27. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

28. 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

29. 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; 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 for H2S and mercaptans 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

30. 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 D1072, D4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2.4; 4306, 6.3.2.4; and 4351, 6.3] Federally Enforceable Through Title V Permit

36. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305, 6.3.2.1 and 4306, 6.3.2.1] Federally Enforceable Through Title V Permit

37. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 4305, 6.3.2.6 and 4306, 6.3.2.6] Federally Enforceable Through Title V Permit

38. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 6.3.2.2 and 4306, 6.3.2.2] Federally Enforceable Through Title V Permit

39. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 6.3.2.5 and 4306, 6.3.2.5] Federally Enforceable Through Title V Permit

40. 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

41. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

1. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MBtu or 0.006 lb-VOC/MBtu or 1.026 lb-SOx/MBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MBtu or 0.084 lb-CO/MBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. 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 c; District Rule 4320. [District Rules 4305; 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit.

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit.

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit.

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit.

15. An analysis of the fuel sulfur content may be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit.

16. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit.

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu2u) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculate emissions; Fuel Gas Sulfur Content - EF. Method 11 or EFA Method 15 or ASTM D1972, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible); 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit.

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

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel’s sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rules 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-94-27
SECTION: 29  TOWNSHIP: 28S  RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STRUTHERS STEAM GENERATOR (HSG# 70-08; DIS# 20627-81) WITH FLUE GAS RECIRCULATION, NORTH AMERICAN, MODEL #5131-HGCR-62.5, BURNER AND NORTH AMERICAN OPTIMIZER (CANFIELD LEASE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following PM10: 0.108 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District Rules 2201, 4305, 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 468] Federally Enforceable Through Title V Permit

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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

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

27. 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 [ Kerm County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. 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 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-95-23  
EXPIRATION DATE: 02/28/2017

SECTION: SE05  
TOWNSHIP: 29S  
RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS/GAS FIRED STRUTHERS STEAM GENERATOR (HSG# 70-31; DIS# 20642-79) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM AND NORTH AMERICAN OPTIMIZER - SJ LOWER

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu or 1.026 lb-SOx/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 43.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas-fired steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

15. An analysis of the fuel sulfur content may be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

16. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SCx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or APB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [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.
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 420! (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1952), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. . . . permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-98-26  EXPIRATION DATE: 02/28/2017

SECTION: SE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOUR RECOVERY GAS-FIRED STEAM GENERATOR (HSG# 70-44; DIS# 20608-82) WITH A NORTH AMERICAN MODEL #GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr/S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu; or 0.006 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

15. An analysis of the fuel sulfur content may be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

16. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

25. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3%/ O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/ certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

28. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [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.
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

33. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-99-26
EXPIRATION DATE: 02/28/2017
SECTION: SE05 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (HSG# 70-45; DIS# 20609-82) WITH A NORTH AMERICAN MODEL #GLE-4231 LOW NOX BURNER AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr S/100 scf unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu; or 0.006 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu; 54.0 lb-NOx/day; 9,855 lb-NOx/year; 0.084 lb-CO/MMBtu; 55.3 lb-CO/day; and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

7. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit.

10. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit.

11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit.

12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit.

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 2520, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit.

14. An analysis of the fuel sulfur content may be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit.

15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit.

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588, PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit.

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4303, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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 results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 5.6] Federally Enforceable Through Title V Permit

27. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

32. 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 4320, 5.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-262-5
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
720 STEAM-ENHANCED CRUDE-OIL PRODUCTION WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to front line production equipment vented to a District-approved vapor collection and control system that has a VOC destruction or removal efficiency of at least 99%, or to gauge tanks as defined by Rule 4401 Section 3.17. [District Rule 4401] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

5. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

6. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.5.1 and 5.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 3 of Rule 4401. [District Rule 4401 5.6.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401 5.7.1] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.7.2] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.7.3] Federally Enforceable Through Title V Permit

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

15. 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 required as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401 5.8.3] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.8.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. 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

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401 5.9.1] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.9.2] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.9.3] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.9.4] Federally Enforceable Through Title V Permit

25. 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 of Rule 4401. [District Rule 4401 5.9.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401 5.9.6] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.9.7] Federally Enforceable Through Title V Permit

28. 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

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit

30. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit

33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit

34. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit

35. Operator shall submit to the APCO not later than June 1, 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. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit

36. 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. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit

37. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.11] Federally Enforceable Through Title V Permit

38. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit

39. If approved by EPA, ARB, and the APCO, an operator shall not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator shall 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. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit

41. 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. [District Rule 4401 6.2.4] Federally Enforceable Through Title V Permit

42. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: 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 of Rule 4401. [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.
43. 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

44. 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

45. 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

46. 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

47. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit

48. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

49. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

50. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3 and 6.7] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-448-6  
EXPIRATION DATE: 02/28/2017

SECTION: SE30  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTICN:  
750 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, GLOBE WASH TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall er:.y store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permitee 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permitee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-509-5
EXPIRATION DATE: 02/28/2017

SECTION: SW32  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK #TK3-7

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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 method's used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-530-5
EXPIRATION DATE: 02/28/2017
SECTION: SW5  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK #0.53K25

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.7] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-531-5
EXPIRATION DATE: 02/28/2017
SECTION: SW4 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK #0.5GK26

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-586-5
EXPIRATION DATE: 02/28/2017
SECTION: SW04   TOWNSHIP: 29S   RANGE: 29E
EQUIPMENT DESCRIPTION:
1,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, GOLD STANDARD 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, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing for 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-592-4
EXPIRATION DATE: 02/28/2017
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, S. PROCESS 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, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapop pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-594-8
EXPIRATION DATE: 02/28/2017
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
4,530 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, SETTLING #37 AUTHORIZED TO RECEIVE FLUIDS FROM S-1131 AND S-1127

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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 method’s used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-598-24
EXPIRATION DATE: 02/28/2017
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
43,000 BBL 80' DIA X 48' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK SURGE #5 (STATION 36) WITH GAS BLANKETING AND VAPOR CONTROL SYSTEM INCLUDING 5 STEAM GENERATORS, DOGGR APPROVED VAPOR DISPOSAL WELLS, AND SULFUR REMOVAL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Tank shall only be vented to vapor control system shared with crude oil processing tanks #S-1131-608, '-613, '-629, '-630, '-638, '-641, '-650, '-651, '-1097 and vapor control system listed on S-1131-885. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Sulfatreat system shall be located downstream of sampling point used for verification that gas processed by tank S-1131-598 contains < 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit

5. Collected VOC vapors shall be incinerated in steam generators S-1131-82, '-95, '-98, '-99, and '-859, or disposed of in Department of Oil, Gas, and Geothermal Resources (DOGGR) approved vapor disposal well(s). [District Rule 2201] Federally Enforceable Through Title V Permit

6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

7. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 113.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water 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.
12. Operator shall conduct quarterly sampling from the tank vapor control system's emergency gas exhaust header sample point to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-606, -613, -622, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit

13. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

17. A visible mist, liquid dripping at the rate of more than 12 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

20. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

22. 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, 6.2] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

25. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

26. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

27. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

29. When a D.O.G.G.R. disposal well is changed, or a new well is added, permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rules 1070; and 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

32. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

33. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

34. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

35. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
36. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

37. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

38. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

39. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

40. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

41. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-599-8
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
5,410 BBL FIXED-ROOF CRUDE OIL WASH TANK #1-A AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquids with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative sample 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-601-4
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
5,920 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, #6600 N OT

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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 method used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-602-4
EXPIRATION DATE: 02/28/2017
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE CIL PRODUCTION TANK, N. PROCESS 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, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-603-8
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
4.470 BBL FIXED-ROOF CRUDE OIL SETTLING TANK #43 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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, TVP 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] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-606-8
SECTION: NE05  TOWNSHIP: 29S  RANGE: 2E
PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory “Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph”, as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-608-21
EXPIRATION DATE: 02/28/2017
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #41 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2261] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. 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 A: Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of each API gravity of petroleum liquids stored in this unit to determine which oils are from a common 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.
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-610-8
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
4,530 BBL FIXED ROOF CRUDE OIL SETTLING TANK #20 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND 3-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-613-19
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
10,000 BBL 55' DIA X 24' HIGH FIXED ROOF CRUDE OIL PRODUCTION TANK, SHIPPING #40 (STATION 36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Tank is authorized to receive fluids from station 36 "Surge" tanks receiving production from steam-enhanced wells with closed well casing vents. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

5. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall conduct true vapor pressure (TVP) tests 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, 6.2] Federally Enforceable Through Title V Permit


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 3283 and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-615-8
SECTION: NE05   TOWNSHIP: 29S   RANGE: 28E

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-619-8
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2017
EQUIPMENT DESCRIPTION:
5,410 BBL FIXED ROOF CRUDE OIL WASH TANK #1-B AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. 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 method used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-620-8  EXPIRATION DATE: 02/28/2017

SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
5,410 BBL FIXED ROOF CRUDE OIL WASH TANK #2 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-621-8
SECTION: NE05  TOWNSHIP: 39S  RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
4,470 BBL FIXED ROOF CRUDE OIL SETTLING TANK #45 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by AAR and EPA. [District Rule 4623, 6.4] 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, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-625-8  EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
4,470 BBL FIXED ROOF CRUDE OIL SETTLING TANK #46 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION
36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEA"1-ENHANCED WELLS WITH CLOSED WELL CASING
VENTS (S-1131 AND S-1127)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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 4523, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-626-8
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE OIL WASH TANK #10-2 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
S-1131-626-8, Jan 17 2017, 3:30PM - REPRINT
PERMIT UNIT: S-1131-627-8
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE OIL WASH TANK #10-3 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-628-8
SECTION: NE05 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2017
EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE OIL WASH TANK #10-1 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permitee 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permitee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permitee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permitee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-629-11  EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
37,600 BBL FIXED ROOF CRUDE SURGE TANK #6 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, the permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least monthly. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired recording the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document: the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by ARB, CO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, permit to operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-630-11  EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
1,579,200 GALLON FIXED ROOF CRUDE SURGE TANK #7 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 5.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-631-8  EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
5,410 BBL FIXED ROOF CRL'DE OIL WASH TANK #1 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 “SURGE” TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-633-8
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hoist organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-634-8
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
8,890 BBL FIXED ROOF CRUDE OIL WASH TANK #10-4 AUTHORIZED FOR RECEIPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the record's 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 method's used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-635-8
EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
5,410 BBL FIXED ROOF CRUDE OIL WASH TANK #2-A AUTHORIZED FOR RECEPT OF FLUIDS FROM STATION 36 "SURGE" TANKS RECEIVING PRODUCTION FROM STEAM-ENHANCED WELLS WITH CLOSED WELL CASING VENTS

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by AFB and EPA. [District Rule 4623, 6.4] 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, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-636-4
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
10,570 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, #10000 SHIP

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
S-1131-636-4, Jan 17 2012 8:54AM - ROGARDK
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-638-11

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
37,600 BBL FIXED ROOF CRUDE SURGE TANK #2 (STATION 36) WITH VAPOR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 26 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 327, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document: to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common 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.
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and all be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and audiorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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 4622 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 the tank. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit


15. 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 "Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 325, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by ARB, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. 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 4622, 6.2] Federally Enforceable Through Title V Permit

18. 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 storage 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] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common 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.
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-650-11
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
37,600 BBL FIXED ROOF CRUDE SURGE TANK #4 (STATION 36) WITH VAPOUR CONTROL SYSTEM LISTED ON S-1131-598

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permitee shall maintain records of number and type of components in gas service installed. Permitee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit.

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit.

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit.

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit.

13. 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 4622, 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.


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit.

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 325, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of the California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588, dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCC, ARB, and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit.

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit.

18. 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 storage 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] Federally Enforceable Through Title V Permit.

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit.

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit.
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 7.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according to the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

11. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix C is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
21. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

22. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

23. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Prior to taking the vapor control systems off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable Through Title V Permit

31. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCCO 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 method used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-663-4
EXPIRATION DATE: 02/28/2017
SECTION: SE05  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
250 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK #TK2-4

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test method for vapor pressure of reactive organic compounds in heavy crude oil using gas chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

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

PERMIT UNIT: S-1131-716-19
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 6280 STEAM ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS
PRODUCING TO TANKS WITH VAPOR CONTROL

PERMIT UNIT REQUIREMENTS

1. Operation shall include no more than 6,280 steam enhanced crude oil production wells with closed casing vents.
   [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil
   production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current
   listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list
   whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for
   District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not
   producing. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require
   prior authorization by an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Steam-enhanced production wells with closed well casing vents shall each have a visible identification number. Field
   personnel shall be provided with written instructions concerning proper operation and maintenance of the closed
   casing vent wells. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Total number of well casing and casing vent leaks from steam-enhanced oil production wells in this TEOR operation
   shall not exceed one leak detected for each 20 wells tested, with a minimum of 362 wells tested. A leak is defined as a
   reading in excess of 10,000 ppm when measured with a portable hydrocarbon detection instrument calibrated with
   methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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,
   and other (pressure relief devices, compressor seals, polished rods stuffing boxes, meters, etc.). Components shall be
   further identified and categorized according to the following types of service: gas/vapor, liquid with an API gravity of
   20 degrees or more, and liquid with an API gravity less than 20 degrees. [District Rule 2201] Federally Enforceable
   Through Title V Permit

8. Number of fugitive components serving well casing and casing vents shall not exceed: 55,998 valves; 151 pump seals;
   1,508,592 connectors; 110,634 flanges; 6,566 open-ended lines (sample connections, drains, bleed valves, etc.); and
   6,280 other (pressure relief devices, compressor seals, polished rods stuffing boxes, meters, etc). [District Rule 2201]
   Federally Enforceable Through Title V Permit

9. Component screening shall be performed using a portable hydrocarbon detection instrument calibrated with methane in
   accordance with EPA Reference Method 21. [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. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/Carib’s California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999); detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of the interface. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit

13. All other components such as diaphragms, dump arms, instruments, meters, polished rods stuffing boxes shall be monitored at all points of possible emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

15. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

16. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

17. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.26] Federally Enforceable Through Title V Permit

18. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the vent line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair. of the well provided such activity is done as expeditiously as possible with minimal spillage of material containing VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

19. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

20. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

22. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

23. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

24. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

25. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

26. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

27. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

28. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

29. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

30. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable 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. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

33. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

34. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

35. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

36. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

37. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

38. 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] Federally Enforceable Through Title V Permit

39. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

40. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

41. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certificate from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

42. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

43. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

44. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
45. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

46. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

47. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

48. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

49. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

50. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

51. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
52. Operator shall maintain an inspection log in which all operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

53. Operator shall keep a copy of the AFCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

54. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

55. By January 30 of each year, an operator shall submit to the AFCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

56. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 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-1131-724-4
EXPIRATION DATE: 02/28/2017
SECTION: NE05  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
GASOLINE DISPENSING OPERATION WITH TWO 10,000 GALLON UNDERGROUND STORAGE TANKS SERVED BY
OPW PHASE I ENHANCED VAPOR RECOVERY SYSTEM (VR-102-A), AND THREE FUELING POINTS WITH THREE
GASOLINE DISPENSING NOZZLES SERVED BY HEALY PHASE II ENHANCED VAPOR RECOVERY SYSTEM
WITHOUT ISD (VR-201-E) (KERN RIVER)

PERMIT UNIT REQUIREMENTS

1. The permittee shall store or dispose of gasoline in closed, non-leaking containers. The containers shall remain closed
   at all times except when depositing or removing the contents of the containers or when the container is empty. [District
   Rule 4621, 5.6] Federally Enforceable Through Title V Permit

2. The vapor recovery systems and their components shall be installed, operated, and maintained in accordance with the
   State certification requirements. [District Rules 4621, 5.2; and 4622, 5.1] Federally Enforceable Through Title V
   Permit

3. The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the
   manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and
   regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the
   State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health
   of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control
   Board that have been made conditions of the certification. [District Rules 4621, 5.2; and 4622, 5.1] Federally
   Enforceable Through Title V Permit

4. Each ARB certified vapor recovery system shall be tested within 60 days of major modification or installation, except
   as otherwise allowed by this permit. For this condition, a major modification is considered to be replacing, repairing,
   or upgrading 75% or more of the certified system. [District Rule 4622, 6.4] Federally Enforceable Through Title V
   Permit

5. The ARB certified vapor recovery system and all of its components shall be maintained in good repair. Any ARB
   certified gasoline vapor recovery system, which has been installed and has been issued a permit to operate, shall not be
   removed regardless of the amount of gasoline dispensed or how the gasoline is delivered to the facility. [District Rule
   4622, 5.2] Federally Enforceable Through Title V Permit

6. No owner or operator shall tamper with, or permit tampering with, the ARB certified vapor recovery system in a
   manner that would impair the operation or effectiveness of the system. [District Rule 4622, 5.9] Federally Enforceable
   Through Title V Permit

7. All nozzles shall be equipped with coaxial hose configurations. [District Rule 4622, 5.1] Federally Enforceable
   Through Title V Permit

8. Each gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 4621, 5.2] Federally
   Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. Each storage tank subject to this permit shall be equipped with an ARB certified Phase I vapor recovery system, which shall prevent at least 95% by weight of all gasoline vapors displaced during the filling of storage tanks from entering the atmosphere. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the unit is equipped with an ARB certified Phase I system and maintained and operated according to manufacturers specifications. [District Rule 4621, 5.2] Federally Enforceable Through Title V Permit

10. Each dispensing system shall be equipped with an ARB certified Phase II vapor recovery system which shall prevent at least 95% by weight of all gasoline vapors displaced during refueling of vehicles from entering the atmosphere. [District Rule 4622, 5.1] Federally Enforceable Through Title V Permit

11. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rules 4622, 3.25; and 2522, 9.1] Federally Enforceable Through Title V Permit

12. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621, 5.7] Federally Enforceable Through Title V Permit

13. No person shall top off a motor vehicle fuel tank. [District Rule 4622, 5.6] Federally Enforceable Through Title V Permit

14. No gasoline shall be transferred into vehicle fuel tanks if the vapor recovery system contains any defect listed in Section 94006 of Title 17 of the California Code of Regulations or in Section 5.4 of SJVUAPCD Rule 4622 (as amended February 17, 1994) until the defect has been repaired, replaced, or adjusted as necessary to correct the defect, and the District has reinspected the system or has authorized its use pending reinspection. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

15. No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

16. Any defects identified shall be tagged "Out of Order"; the tagged equipment shall be removed inoperable and the tag(s) shall not be removed until the defect has been repaired, replaced or adjusted. In the case of defects identified by the District, tagged equipment shall be rendered inoperable and the tag shall not be removed until the District has been notified of the repairs, and the District has inspected and authorized the tagged equipment for use. A leg containing at least the following shall be maintained: date and type of defect identified and date repaired, replaced or corrected. [District Rules 4622, 5.4] Federally Enforceable Through Title V Permit

17. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor-Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621, 6.3; and 4622, 5.2] Federally Enforceable Through Title V Permit

18. Proof of the ICC certificatior and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621, 6.3; and 4622, 5.2] Federally Enforceable Through Title V Permit

19. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621, 6.3 and 4622, 6.4] Federally Enforceable Through Title V Permit

20. The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621, 5.3; and 4622, 6.4] Federally Enforceable Through Title V Permit
21. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621, 6.2] Federally Enforceable Through Title V Permit

22. The permittee shall perform and pass a Dynamic Back Pressure Test using ARB TP-201.4 at least once every 12 months. [District Rule 4622, 6.4, 6.5] Federally Enforceable Through Title V Permit

23. The permittee shall perform and pass a Static Leak Test for Underground Tanks using ARB TP-201.3 in accordance with the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rules 4621, 5.3; and 4622, 6.4, 6.5] Federally Enforceable Through Title V Permit

24. The permittee shall perform and pass a Vapor-to-Liquid Volume Ratio Test using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every six (6) months. [District Rule 4622, 6.4, 6.5] Federally Enforceable Through Title V Permit

25. The permittee shall perform and pass a Static Pressure Test for the Healy Clean Air Separator using the test procedure defined in the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622, 6.4, 6.5] Federally Enforceable Through Title V Permit

26. The permittee shall perform and pass a Dispenser vapor Line Tightness test for each dispenser using the test procedure defined in the Installation, Operation and Maintenance manual of the Executive Order specified in this permit for the Phase II Vapor Recovery System at least once every 12 months. [District Rule 4622, 6.4, 6.5] Federally Enforceable Through Title V Permit

27. The permittee shall perform and pass a Pressure Integrity of Drop Tube Drain Valve Assembly Test using ARB TP-201.1C or a Pressure Integrity of Drop Tube Overfill Protection Devices Test using ARB TP-201.1D if an overfill protection device is installed, at least once every 36 months. [District Rule 4621, 5.3] Federally Enforceable Through Title V Permit

28. The permittee shall perform and pass a Static Torque of Rotatable Phase I Adaptors test using ARB procedure TP-201.1B at least once every 36 months. [District Rule 4621, 5.3] Federally Enforceable Through Title V Permit

29. The District shall be notified within 24 hours of the facility's pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rules 4621, 6.1; and 4622, 6.2] Federally Enforceable Through Title V Permit

31. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free as verified using EPA Test Method 21 and visual inspection. Leak testing shall be performed at least annually and within 60 days of all major modifications. For this condition, a major modification is considered to be replacing, repairing, or upgrading 75% or more of the certified system. A leak is defined as the dripping at a rate of more than three (3) drops per minute of liquid containing VOCs or a reading as methane in excess of 10,000 ppm as determined using EPA Method 21. [District Rules 4621, 3.19, 5.1, 5.6; and 4622, 3.17, 5.1, 5.6, 6.5] Federally Enforceable Through Title V Permit

32. Each operator shall maintain a leak inspection log containing, at a minimum, the following: inspector's name, location and description of component type where any leak is found; date of leak detection, emission level (ppm) if applicable, and date leak is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rules 4621, 6.1; and 4622, 6.1, 6.2] Federally Enforceable Through Title V Permit
34. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4 of Rule 4622. The program shall be documented in an operations and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

35. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,600 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621, 5.5; and 4622, 5.3] Federally Enforceable Through Title V Permit

36. Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621, 5.5] Federally Enforceable Through Title V Permit

37. Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the fueling instructions required by this permit are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs; 2) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 3) the hoses are not torn, flattened or crimped; 4) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 5) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622, 5.3] Federally Enforceable Through Title V Permit

38. In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622, 5.4] Federally Enforceable Through Title V Permit

39. The gasoline throughput for this permit unit shall not exceed 500,000 gallons in any one calendar year. [District Rule 4622, 5.2] Federally Enforceable Through Title V Permit

40. The operator shall maintain monthly and annual gasoline throughput records. [District Rules 4621, 6.1; and 4622, 6.2] Federally Enforceable Through Title V Permit

41. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622, 5.2] 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.
42. The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622, 6.3] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4621 (as amended December 20, 2007), and 4622 (as amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. This unit is not associated with loading at a bulk gasoline terminal (as defined in 40 CFR 60.501). Therefore, the requirements of 40 CFR 60 Subparts XX do not apply to this permit unit. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-833-3  EXPIRATION DATE: 02/28/2017
SECTION: NW5  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
240 BHP DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

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. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

4. 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

5. 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

6. 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

7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [17 CCR 93115]

8. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit

9. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

10. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

1. No modification to this unit shall be performed without an Authority to Construct for such 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 Rule 4306] Federally Enforceable Through Title V Permit

4. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

5. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed the following: PM10: 0.109 lb/MMBtu, SOx (as SO2): 1.026 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu, and CO: 0.029 lb/MMBtu or 39 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [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. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

14. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed or authorized by the District. Sample collection shall be done by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

15. 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

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, N₂O (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

18. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12.5% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

22. 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 heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

38. Permittee shall maintain records of annual heat input (MWh) 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 4320; 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-859-13   EXPIRATION DATE: 02/28/2017
SECTION: SE05   TOWNSHIP: 29S   RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPORECOVERY GAS FIRED STEAM GENERATOR (HSG# 50-51; DIS# 19161- 75)
WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME, LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR)
SYSTEM AND NORTH AMERICAN OPTIMIZER (SAN JOAQUIN LOWER)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas, recovered vapors and vapor recovery gas from the vapor control
   system listed on permit unit PTO S-1131-598 that has a combined fuel sulfur content not exceeding 5 gr S/100 scf
   unless SOx is reduced by 95% or to an outlet concentration not exceeding 9 ppmv via scrubbing. [District Rules 2201
   and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and
   vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through
   Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.108 lb-PM10/MMBtu; 1.026 lb-SOx/MMBtu; or 0.006
   lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2
   or 0.018 lb-NOx/MMBtu and 39 ppmvd CO @ 3% O2 or 0.029 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and
   4320] Federally Enforceable Through Title V Permit

5. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the
   following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 43.5 lb-CO/day,
   and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

6. 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.
   Permitee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3,
   6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

7. 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 Rules 4305, 3.21, 3.25; 4366, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable
   Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. 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 36 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

10. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 2320, 9.3.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit

14. An analysis of the fuel sulfur content may be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2231 and 4320] Federally Enforceable Through Title V Permit

15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing under scrubbed operation has occurred within the previous 12 months. [District Rules 2231 and 4320, 5.4] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 10; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; CO, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 30A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

20. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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 results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain daily records of total combined volume of fuel gas and vapor recovery gas burned, the dates of any fuel type switching, the sulfur content and higher heat value as determined by periodic analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

27. No less than 4.54 miles of roads shall be paved and maintained to provide particulate matter offsets for Project 62 and 95. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Only hot mix asphalt of a type conforming to Caltrans Standard Specifications shall be used in the paving or maintenance of roads used to provide particulate matter offsets for Project 62 and 95. [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.
29. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1995), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

30. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

32. 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 4320, 5.3] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-861-2
SECTION: SW32  TOWNSHIP: 28S  RANGE: 28E
EXPIRATION DATE: 02/28/2017
EQUIPMENT DESCRIPTION:
1,354 BBL 35.5 FT. HIGH X 17 FT. DIAMETER, FIXED ROOF, CONSTANT LEVEL, CRUDE OIL WASH TANK

PERMIT UNIT REQUIREMENTS

1. Tank shall operate at constant liquid level, and the maximum temperature of the liquid stored shall not exceed 165 degrees Fahrenheit [District Rule 2201] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored in this permit unit shall not exceed 0.4 psia without prior District approval [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall keep accurate monthly records of the storage temperature of liquids stored in the tank, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain accurate records of Reid vapor pressure updated at least once every 12 months, for a period of five years, and shall make records readily available for District inspection upon request. [District Rule 2201; and 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. 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, 6.2] Federally Enforceable Through Title V Permit


8. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by AR3 and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

11. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. 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

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

1. Tank shall operate at constant liquid level, and the maximum temperature of the liquid stored shall not exceed 165 degrees Fahrenheit [District Rule 2201] Federally Enforceable Through Title V Permit

2. True vapor pressure of liquid stored in this permit unit shall not exceed 0.4 psia without prior District approval [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permitee shall keep accurate monthly records of the storage temperature of liquids stored in the tank, and such records shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permitee shall maintain accurate records of Reid vapor pressure updated at least once every 12 months, for a period of five years, and shall make records readily available for District inspection upon request. [District Rule 2201; and 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. Permitee 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, 6.2] Federally Enforceable Through Title V Permit


8. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by AR3 and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The perimittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

10. Permitee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

11. The perimittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. 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.
PERMIT UNIT REQUIREMENTS

1. 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. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

3. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

5. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

7. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
8. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

9. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWP O vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TZOR vapor control gas from S-1131-903 and 909 shall be combusted in this unit with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Total sulfur content of PUC quality natural gas combusted shall not exceed 0.2 grain/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: SOx (as SO2): 64.0 lb/day, PV.10: 115.2 lb/day, or VOC: 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% CE, or CO: 28 ppmvd @ 2% O2. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

14. 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 as far as technologically possible. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

15. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

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

17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a restart as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; and 4306, 5.5] Federally Enforceable Through Title V Permit

18. Source testing to measure natural gas combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. 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 3-year source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

19. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] 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 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.
22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081, 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

23. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

25. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

26. 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

27. 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; 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

28. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305; 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit

30. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Annual test results submitted to the District from units representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. The following conditions must be met for representative units to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in a group are less than 90% of the permitted value and vary 25% or less within the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MBtu/hr), make series and operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions shall have the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4334 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

36. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g., from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

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

38. 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 4070, 4305, 6.1.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. This unit commenced construction, modification, or reconstruction prior to June 1, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. 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

42. Permittee shall maintain records of annual heat input (MBtu) 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 4320, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
43. Formerly S-1143-3.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-879-18
SECTION: 04 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOUR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER WITH FGR AND AN O2 CONTROLLER (#70, CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

3. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

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

5. Emissions from the steam generator shall not exceed any of the following limits: 0.055 lb-NOx/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4305, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

9. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

10. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/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. 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 33-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

12. 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

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis average over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

14. 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

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

16. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that noncompliance 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

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

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

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 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, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

31. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

32. 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

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

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

37. 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 4320, 5.3] Federally Enforceable Through Title V Permit

38. Formerly S-1143-5.

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

1. 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. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit.

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

3. 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 shall be taken over an average over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit.

4. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit.

5. Steam generator shall be equipped with operational fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit.

6. 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] Federally Enforceable Through Title V Permit.

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
7. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and S-1131-909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

9. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

10. The permittee shall keep daily records of the amount of natural gas combusted and the amount of TEOR/TVR gas incinerated. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed any of the following: S/C: (as SO2): 105.1 lb/day, PM10: 19.2 lb/µg/y, or VOC: 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates, except during start-up and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MBtu or 15 ppmv @ 3% O2, or CO: 1.90 lb/hr or 41 ppmv @3% O2. [District Rules 2201, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit

13. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

14. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

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

16. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis, using District approved portable analyzers, in any calendar month in which the unit operates. [District Rules 2201, 2520, 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

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

18. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

19. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are p.s. of the Facility-wide Permit to Operate.
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 results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

23. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

25. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

26. 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

27. 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; 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

28. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit
30. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 4C]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Nitrogen oxide (NOx) emissions shall not exceed 140 lbs/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 10f1 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4301, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. The following conditions must be met for representative unit(s) to be used for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 95% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

36. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil), then that unit shall not be considered part of the group and shall not be required to undergo a source test for all fuel types used, within one year of the switch. [District Rule: 2520, 6.3.2, 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

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

38. 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

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. This unit commenced construction, modification, or reconstruction prior to June 12, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 0.400c 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

There terms and conditions are part of the Facility-wide Permit to Operate.
41. 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

42. 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 4320, 5.3] Federally Enforceable Through Title V Permit

43. Formerly S-1143-6-8.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-881-13  EXPIRATION DATE: 02/28/2017
SECTION: 04  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR STRUTHERS NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN GLE LOW-NOX BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN O2 CONTROLLER (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, vapor recovery gas volume flowmeter. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

2. 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] Federally Enforceable Through Title V Permit

3. Only PUC quality natural gas and noncondensable TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

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

5. 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

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

7. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb-SOx/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

9. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

10. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL,KERN COUNTY, CA
S-1131-881-13 : Jan 17 2013  #3 FM - RICHARD

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.
These terms and conditions are part of the Facility-wide Permit to Operate.
11. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

12. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/day. [District Rule 2261] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. 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 limit, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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

16. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

17. If the steam generator is fired on FUC-regulated natural gas, then the permittee shall maintain five 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

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

19. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4335, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliancy with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D1826 or D 1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

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

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

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

28. 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

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

36. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

38. 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, 9.5.2] Federally Enforceable Through Title V Permit

39. 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

40. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

43. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, and 4320, 5.3] Federally Enforceable Through Title V Permit

44. Formerly S-1143-6-8.
PERMIT UNIT REQUIREMENTS

1. Only PUC quality natural gas and noncondensable TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain with the permit a current listing of all thermally enhanced well vent control systems and tank vapor recovery systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

4. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb-Sox/MMBtu, 0.013 lb-PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 41 ppmvd CO @ 3% O2 or 0.03 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

9. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

10. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 45.0 lb-CO/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. 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 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

15. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain or 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

16. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 5031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab-sampling analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensable), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

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

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

32. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

34. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. 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

40. Permittee shall maintain records of annual heat input (MJ/MBTu) 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 4320, 5.3] Federally Enforceable Through Title V Permit

41. Formerly S-1143-9.

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

PERMIT UNIT: S-1131-884-15
EXPIRATION DATE: 02/28/2017
SECTION: 04 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR #144
EQUIPPED WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER AND FLUE GAS
RECIRCULATION. (CENTRAL PLANT)

PERMIT UNIT REQUIREMENTS

1. Only PUC quality natural gas and noncondensible TVR gas from tank battery and associated FWKO vessels served by
   vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-
   1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally
   Enforceable Through Title V Permit

2. Permittee shall maintain with the permit a current listing of all thermally enhanced well vent control systems and tank
   vapor recovery systems providing vapors to this steam generator and shall make such listing readily available for
   District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

4. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing
   compliance with permitted emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Emissions from the steam generator shall not exceed any of the following limits: 0.07 lb-SOx/MMBtu, 0.013 lb-
   PM10/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following
   limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu.
   [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

7. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following
   limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V
   Permit

8. 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.
   Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules
   4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

9. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V
   Permit

10. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-
    CO/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.

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
S-1131-884-15 Jan 17 2012 8:37AM - RICKERD
11. 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 limit, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

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

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Sulfur compounds emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis average over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

15. 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

16. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM D 1072, D 331, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

19. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall: (a) cease 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 qualified breakdown condition pursuant to Rule 100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

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

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CC concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration, and records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

32. Permittee shall measure and record, at least monthly, the sulfur content and ETU content of the vapor recovery gas incinerated in this unit. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 1081] Federally Enforceable Through Title V Permit

34. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. 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

40. 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 4320, 5.3] Federally Enforceable Through Title V Permit

41. Formerly S-1143-10.

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

PERMIT UNIT: S-1131-885-21
EXPIRATION DATE: 02/28/2017
SECTION: SW03  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #3K-L75 WITH VAPOR CONTROL SYSTEM

PERMIT UNIT REQUIREMENTS

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Well vent vapor control systems S-1131-903, S-1131-909, and S-1131-598 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. Permittee shall maintain records of components exempted from counting, and the basis for exemption. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emission rates shall be calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 and the total number of vapor components. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from components associated with vapor recovery trunk-line up to and including vapor compressors and approved disposal devices shall not exceed 23.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The fugitive VOC emission rate does not include piping and components handling produced fluids with API gravity less than 30 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The fugitive VOC emission rate does not include piping and components handling produced fluids having less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The fugitive VOC emission rate does not include components in water/oil service (water content of fluids handled greater than 50%). Permittee shall maintain records of annual testing to demonstrate that such fluid streams have at least 50% water by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Operator shall conduct quarterly sampling from the tank vapor control system's inlet header to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1131-608, -613, -629, -630, -638, -641, -650, -651, and -1097. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit


15. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '629, '630, '638, '641, '650, '651, and '1097). [District Rule 2201] Federally Enforceable Through Title V Permit

16. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVF less than 0.5 psia; or conducted by injecting the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = 2.3 \frac{V}{Q} \) where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

21. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hanger seals shall be inspected for leaks using a method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2680] Federally Enforceable Through Title V Permit
25. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

28. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorially shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

31. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

32. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

33. 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, 6.2] Federally Enforceable Through Title V Permit


35. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
36. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

37. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

38. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

39. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

40. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

41. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit

42. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit


These terms and conditions are part of the Facility-wide Permit to Operate.
1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit


7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, "629, "630, "638, "641, "650, "651, and ")-1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3 \times V}{Q} \) where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2303] Federally Enforceable Through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Tank roof, tank shell, tank vapor space apparatus, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623] Federally Enforceable Through Title V Permit

25. 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, 6.2] Federally Enforceable Through Title V Permit


27. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

28. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

29. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

30. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

31. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

32. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit

34. 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

35. Formerly S-1143-22. [District Rule 2010] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit


7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, '629, '630, '638, '641, '650, '651, and '1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, clean produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including nitrogen, carbon dioxide, or natural gas containing less than 10% VOC by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: \( t = \frac{2.3}{V/Q} \), where \( t \) = time, \( V \) = tank volume (cubic feet), and \( Q \) = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 9.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be not leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable Through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

25. 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, 6.2] Federally Enforceable Through Title V Permit


27. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

28. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

29. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

30. Permitee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

31. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

32. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit

34. 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

35. Formerly S-1143-27. [District Rule 2010] Federally Enforceable Through Title V Permit

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well vent vapor control systems S-1131-903 and S-1131-909 may discharge vapors into compressor suction of this operation. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate from vapor service components associated with this tank, up to the tie-in with the vapor recovery unit trunk-line, shall not exceed 5.33 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from U.S. EPA Publication 453/R-95-017, or other District-approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Steam generators authorized to incinere collected VOC vapors are S-1131-877, -880, -881, -882, -883, and -908. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Fluids stored or handled by tank shall be routed exclusively to the vapor-controlled "Surge" tanks at Station 36 (S-1131-598, -629, -630, -638, -641, -650, -651, and -1097). [District Rule 2201] Federally Enforceable Through Title V Permit

8. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

9. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

11. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor control system for at least 24 hours after all the liquid in the tank has been drained; or 2) use liquid displacement, conducted by filling the tank with a suitable liquid such as water, cleared produced water, or organic liquids with a TVP less than 0.5 psia; or conducted by floating the oil pad off with water such that 90% of the tank liquid capacity is displaced; or 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) displace vapors by filling the tank with a suitable gas, including air, nitrogen, carbon dioxide, or natural gas containing less than 10% VCO by weight, until a vapor displacement equivalent to at least 2.3 times the tank capacity is achieved; or 5) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q = flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable through Title V Permit

13. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 5g grams/liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable through Title V Permit

14. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable through Title V Permit

15. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable through Title V Permit

16. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable through Title V Permit

17. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable through Title V Permit

18. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable through Title V Permit

19. Tank roof, tank shell, tank vapor space appurtenances, vapor control system piping, and vapor control system components shall be inspected and monitored using EPA Method 21 at least monthly. Items found to be leaking may then be inspected and monitored at least once every 3 months until a leak is detected at which time the inspection and monitoring frequency shall revert to monthly until such time that two consecutive monthly inspections reveal with no leaks at which time the inspection and monitoring frequency shall revert to at least once every 3 months. [District Rule 2201] Federally Enforceable through Title V Permit

20. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours of detecting the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable through Title V Permit

21. Upon detection of a leak, permittee shall tag the leak with a uniquely numbered tag, and shall record the leak location, component leaking, identification tag number, leak magnitude, date of leak detection, date of repair, method of repair, and post-repair monitoring measurement. Such records of leaks shall be maintained current and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable through Title V Permit
22. Components not accessible for EPA Method 21 inspection shall be visually and auditorily checked for leaks at least weekly and shall be monitored using EPA Method 21 at least annually. Any leak detected visually or auditorily shall be recorded and the leak shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. Any leak detected using EPA Method 21 shall be repaired according the leak magnitude as described above and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

23. In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District Rule 2201] Federally Enforceable Through Title V Permit

24. True vapor pressure of any liquid introduced in this permit unit shall be less than 0.5 psia at (or before) tank liquid inlet and at tank storage temperature. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

25. 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, 6.2] Federally Enforceable Through Title V Permit


27. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

28. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board's (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

29. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

30. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

31. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

32. The permittee shall keep accurate records of the dates of inspection and monitoring and the components inspected and monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permittee shall provide District with a copy of D.O.G.G.R. approval for each vapor disposal well prior to use for vapor injection. [District Rule 1070] Federally Enforceable Through Title V Permit

34. 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


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

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-885, '886, '891, and '892, or to S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 201.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in gas processed shall not exceed 30.7% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC content shall be tested annually using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation, and shall consist of sampling of at least one well per producing zone. 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 analyzed by CARB Method 422. [District Rule Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit accurate fugitive component counts 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

7. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

11. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

13. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

14. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

15. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

16. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

17. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

18. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

22. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

26. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. 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] Federally Enforceable 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. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration certificate from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4338, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

41. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

43. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
44. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

45. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

46. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

47. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

48. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

49. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

50. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

51. Formerly S-1143-40.

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

PERMIT UNIT: S-1131-908-16
EXPIRATION DATE: 02/28/2017
SECTION: 4 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MM BTU/HR STRUTHERS NATURAL GAS/VAPOUR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (#71) WITH A NORTH AMERICAN GLE LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM (FGR), AND O2 CONTROLLER

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

2. Only PUC quality natural gas and noncondensable TVR gas from tank battery and associated FWKO vessels served by vapor control system listed on S-1132-8, S-1132-90, S-1131-885, S-1131-1040, and TEOR vapor control gas from S-1131-903 and -909 shall be combusted in this unit without prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the vapor recovery gas incinerated in this unit. [District Rule 4406, 4.0] Federally Enforceable Through Title V Permit

4. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 4406, 4.0] Federally Enforceable Through Title V Permit

5. Flue gas recirculation shall be utilized, as needed, in conjunction with low-NOx burner to maintain ongoing compliance with permitted emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Emissions from the steam generator shall not exceed any of the following limits: 0.055 lb-NOx/MMMBtu, 0.013 lb-PM10/MMMBtu, or 0.0028 lb-VOC/MMMBtu. [District Rules 2201 and 4301, 5.2] Federally Enforceable Through Title V Permit

7. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmv NOx @ 3% O2 or 0.0182 lb-NOx/MMMBtu or 50 ppmv CO @ 3% O2 or 0.037 lb-CO/MMMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

8. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMMBtu or 0.084 lb-CO/MMMBtu. [District Rules 2201 and 4351, 5.1] Federally Enforceable Through Title V Permit

9. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Start-up is defined as the period of time during which the 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 an ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305, 3.2.7, 3.2.15, and 4306, 3.2.2, 3.2.5] Federally Enforceable Through Title V Permit

11. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 55.5 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 48.3] and Kern County Rule 4.77 Federally Enforceable Through Title V Permit

13. Emissions of sulfur compounds from this unit shall not exceed 206 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. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4391, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file the 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

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

17. If the steam generator 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3; 4306, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

22. 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

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

24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

26. The fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rules 4305, 6.2, 4306, 6.2, and 4351, 6.2] Federally Enforceable Through Title V Permit

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

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit
30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO: limits for a group of units: (1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs; (2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and (3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches at any time to an alternate fuel type 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, 4335, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NG and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

36. 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

37. 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, 4306, 6.1, and 4351, 6.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301, 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

39. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. 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 each 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

41. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4305; and 4320, 5.3] Federally Enforceable Through Title V Permit

42. Formerly S-1143-90.

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

PERMIT UNIT: S-1131-909-14
EXPIRATION DATE: 02/28/2017

SECTION: SW03 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 490 STEAM-ENHANCED OIL PRODUCTION WELLS (320 STEAM DRIVE WELLS/170 CYCLIC WELLS)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-885, '-886, '-891, and '-892, or to S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 311.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC content of hydrocarbons in gas processed shall not exceed 30.7% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC content shall be tested annually using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation, and shall consist of sampling of at least one well per producing zone. 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 analyzed by CARB Method 422. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain with the permit accurate fugitive component counts 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

7. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

10. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

11. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the vent line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 7.1 and 5.1] Federally Enforceable Through Title V Permit

13. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operation as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through an open-ended line, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

14. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

15. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

16. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

17. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

18. Except for pipes and unsafe-to-negotiate components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
21. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

22. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

26. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. 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] Federally Enforceable 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. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. 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 the calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

40. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

41. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

43. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
44. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

45. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

46. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

47. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

48. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

49. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

50. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

51. Formerly S-1143-91.

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

1. The operator shall fire the unit only on natural gas. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 1.0 gr S/100 scf. [District Rules 2201, and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeter that measures the fuel gas volume sent to the steam generator. [District Rules 2201; and 4320, 5.2] Federally Enforceable Through Title V Permit

3. Emissions from the steam generator shall not exceed any of the following limits: 0.014 lb-PM10/MMBtu or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu. [District Rules 2201; 4305, 5.1; 4306, 5.1; and 4320, 5.2] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Maximum emissions from the steam generator, including start-up and shutdown periods, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/year, 55.5 lb-CO/day, and 14,235 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; N2O (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D528; PM10 (ib/Scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas: Oxygen - EPA Method 3 or 3A or ARE Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081, 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer’s specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-917-10
EXPIRATION DATE: 02/28/2017
SECTION: 28  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 141 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate shall not exceed 212.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at ≥1 times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that can not be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, an operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readable visibly weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by A.R.B. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.10 of Rule 4401:
   Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 5.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe into a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) Method 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] Federally Enforceable Through Title V Permit
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit number S-1133-27-8 and S-1109-688-0.
PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA’s protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate shall not exceed 203.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of 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 close-off valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401; requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as identified in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified, with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other component pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.23 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, September of each year if the system's control efficiency is dependent upon ambient temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4323, 4307 or 4338, a heater subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 2.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentration are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than acoustical 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 where 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] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 204-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 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.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit numbers S-1133-31-8 and S-1109-691-0.

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

PERMIT UNIT: S-1131-941-13
SECTION: 25  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT EMISSIONS UNIT: 27.5 MMBTU/HR THERMOTICS VAPOR CONTROL/NATURAL GAS-FIRED STEAM GENERATOR #29 WITH FLUE GAS RECIRCULATION AND AMETEK THERMOX O2 CONTROLLER (LEASE FEE A) (GROUP II)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District Rule 2201] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Emission rates for this unit shall not exceed any of the following: PM-10: 0.093 lb/MMBTU, SOx (as SO2): 0.184 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.007 lb/MMBTU, or CO: 0.033 lb/MMBTU or 45 ppmvd @3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

7. Compliance with the sulfur emissions limit (as SO2) 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 4301] Federally Enforceable Through Title V Permit

8. Fuel hgv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control material, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

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

14. 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

15. 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

16. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District NSR Rule and 4305] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of at least five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

18. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. Emissions of sulfur compounds from this unit shall not exceed 20 lb per hour, calculated as SO2. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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
24. 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; or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.3] Federally Enforceable Through Title V Permit.

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit.

36. Formerly permit number S-1133-1-15 and S-1109-671-C.

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

1. No modification to this unit shall be performed without an Authority to Construct for such 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 Rule 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District Rule 2201] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. This steam generator shall operate only as a replacement standby unit for units S-1131-941. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

7. Annual fuel use shall not exceed 90 billion Btu. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Permittee shall install and maintain a non-resettable, totalizing mass or volumetric fuel flow meter. 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. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. Permittee shall tune the unit at least once each calendar year in which it operates in accordance with the procedure in Rule 4304. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. Permittee shall maintain records of monthly and annual fuel consumption and shall make such records readily available for District inspection upon request for a period of five years. [District Rule 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

11. Emission rates for this unit shall not exceed any of the following: PM-10: 0.075 lb/MMBTU, SOx (as SO2): 0.081 lb/MMBTU, NOx (as NO2): 0.117 lb/MMBTU, VOC: 0.007 lb/MMBTU, or CO: 0.033 lb/MMBTU. [District NSR Rule, Rules 4201, 3.1; 4301, 5.2.1, 5.2.3, 4305, 4351, and 801] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. When complying with 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

13. Compliance with the sulfur emissions limit (as SO2) may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

14. 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; or 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 for 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

15. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

16. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. 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

18. 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

19. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

21. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.3] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

24. Formerly permit number S-1133-21-11 and S-1109-682-0.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-944-9
EXPIRATION DATE: 02/28/2017
SECTION: 06 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S B-1 & B-2) SERVING 71 STEAM ENHANCED WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO Vapor CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE B LEASE)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '648, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate shall not exceed 106.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit
7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operation as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found lacking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD no earlier than 24 hours after the initial inspection but no later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
32. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit.

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit.

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit.

35. An operator shall perform annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 2.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401 6.2] Federally Enforceable Through Title V Permit.

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401 6.2] Federally Enforceable Through Title V Permit.

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401 6.2] Federally Enforceable Through Title V Permit.

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- nor over-reported. [District Rule 4401 6.3] Federally Enforceable Through Title V Permit.

39. VOC content shall be analyzed by using the latest revision of USEPA Method E168, E169, or E260 as applicable. Analysis of halogenated exceppt compounds shall be performed by using ARB Method 432. [District Rule 4401 6.3] Federally Enforceable Through Title V Permit.

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3] Federally Enforceable Through Title V Permit.


PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit number S-1133-30-6 and S-1109-690-0.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-958-10

San Joaquin Valley
Air Pollution Control District

EXPIRATION DATE: 02/28/2017

SECTION: 30  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION (#S C-1, C-2 & C-3) SERVING 95 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (FEE C LEASE)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '-629, '-630, '-638, '-641, '-650, '-651, and '-1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate shall not exceed 142.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD no: earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date, time and date of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
32. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection system are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4303, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit number S-1133-29-7 and S-1109-689-0.
PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative sample of the 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

9. Formerly permit number S-1133-42-2 and S-1109-702-0.

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

PERMIT UNIT: S-1131-962-4
EXPIRATION DATE: 02/28/2017
SECTION: NE30  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF WATER STORAGE TANK, KERN RIVER (FEE C LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

9. Formerly permit number S-1133-43-1 and S-1109-703-0.

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

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

9. Formerly permit number S-1133-44-1 and S-1109-704-0.

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

PERMIT UNIT: S-1131-964-4

SECTION: NE30   TOWNSHIP: 28S   RANGE: 28E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF SKIM TANK, KERN RIVER (FEE C LEASE)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, 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, 6.2] Federally Enforceable Through Title V Permit


4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

8. 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

9. Formerly permit number S-1133-45-2 and S-1109-705-0.

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

PERMIT UNIT: S-1131-966-13
EXPIRATION DATE: 02/28/2017
SECTION: 30  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT EMISSIONS UNIT: 27.5 MMBTU/HR THERMOTICS VAPOR CONTROL/NATURAL GAS-FIRED STEAM GENERATOR #24 WITH FLUE GAS RECIRCULATION AMETEK THERMOX O2 CONTROLLER (FEE C LEASE)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. All combustion equipment shall be operated to maintain emission standards. [District Rule 2201] Federally Enforceable Through Title V Permit

5. 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] Federally Enforceable Through Title V Permit

6. Emission rates for this unit shall not exceed any of the following: PM-10: 0.070 lb/MMBTU, SOx (as SO2): 0.184 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.007 lb/MMBTU, or CO: 0.033 lb/MMBTU or 45 ppmvd @3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

7. Compliance with the sulfur emissions limit (as SO2) 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 4301] Federally Enforceable Through Title V Permit

8. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 1081] Federally Enforceable Through Title V Permit

9. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

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

14. 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

15. 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

16. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

18. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 19, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. 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
24. 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, or 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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320, 5.3] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of annual heat input (VtMBtu) 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 4326, 5.3] Federally Enforceable Through Title V Permit

36. Formerly permit number S-1133-3-14 and S-1109-673-0.

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

PERMIT UNIT: S-1131-976-10
EXPIRATION DATE: 02/28/2017
SECTION: SE19 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 23 MMBTU/HR STRUTHERS GAS-FIRED STEAM GENERATOR WITH FLUE GAS
RECIRCULATION AND OXYGEN CONTROLLER/ANALYZER (#13, DIS # 27537-66)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for
   changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Emission rates shall not exceed: PM10; 0.009 lb/MMBtu, SOx (as SO2); 0.005 lb/MMBtu, NOx (as NO2); 0.036
   lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.003 lb/MMBtu; or CO; 0.002 lb/MMBtu or 2.7 ppmv @ 3% O2. [District
   Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

5. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas
   recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

6. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district
   approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and
   CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any
   corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility
   for a period of no less than five years and shall be made readily available for district inspection upon request. [District
   Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the
   permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission
   limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to
   exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the
   first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

10. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once
    every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title
    V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. If permittee fails any emission demonstration for NOx and CO emission limits when testing no less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source test results from an individual unit that is identified to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCD, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100, NOX (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 c; ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

16. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of fuel type and quantity for each day of operation, in the format approved by the District. [District Rule 2201] Federally Enforceable Through Title V Permit

19. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1, 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

21. 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 by 0.005/MMBtu by the maximum heat input rating of the unit, or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

22. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and heat of burning 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

23. 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; or 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
24. 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

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

26. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rules 4201, 4301 and 4801. 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.
35. This unit commenced construction, modification, or reconstruction prior to June 17, 1984. This unit has not been used to produce electricity for sale in 1983 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

37. Permittee shall maintain records of annual heat input (MBtu) 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 4320, 5.3] Federally Enforceable Through Title V Permit

38. Formerly S-1109-2.

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

1. The operator shall fire the unit only on natural gas, recovered vapors and gas from the vapor control system listed on PTO S-1132-8, S-1132-90, S-1131-885, S-1131-903, S-1131-909 and S-1131-1040. The combined fuel sulfur content from these units shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with an operational gas volume flowmeter that measures the combined fuel gas and vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.044 lb-PM10/MMBtu or 0.005 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.618 lb-NOx/MMBtu and 31 ppmvd CO @ 3% O2 or 0.023 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 34.5 lb-CO/day and 12,593 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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 as technically possible. Permitee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.

These terms and conditions are part of the Facility-wide Permit to Operate.
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 or District Rule 4320. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariffs, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4320, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by doubtful GG; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/ft^3) - EPA Method 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 c. 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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 performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e., the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4325, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either as conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. Formerly S-1143-90.

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

PERMIT UNIT: S-1131-992-10  EXPIRATION DATE: 02/28/2017
SECTION: NE29  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR WITH OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (PRICEWELL, #P-9, DIS# 27472-81)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Unit shall be exclusively gas/casing gas-fired and have no provisions for oil firing. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.029 lb/MMBtu, SOx (as SO2); 0.052 lb/MMBtu, NOx (as NO2); 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.005 lb/MMBtu, or CO; 30.7 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rules 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry-stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4331, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-97.

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

PERMIT UNIT: S-1131-993-9            EXPIRATION DATE: 02/28/2017
SECTION: NE29    TOWNSHIP: 28S    RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH
OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (PRICEWELL, P-3, DIS# 28773-85)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for
   changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District Rule 2201]
   Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule
   1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.0063 lb/MMBtu, SOx (as SO2); 0.0243 lb/MMBtu, NOx (as NO2); 0.036
   lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.0042 lb/MMBtu, or CO; 18.7 ppmv @ 3% O2. [District Rules 2201, 4305
   and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas
   recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district
   approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305]
   Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and
    CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any
    corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility
    for a period of no less than five years and shall be made readily available for district inspection upon request. [District
    Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing no less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated no less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - Z9A Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1076 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall comply with the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. Emissions of sulfur compounds from this unit shall not exceed 200 lb/hr, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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 calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. If the unit is fired on uncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.
These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4331, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-104.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-994-10  EXPIRATION DATE: 02/28/2017
SECTION: SE09  TOWNSHIP: 29S  RANGE: 28E
EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER AND FLUE GAS RECIRCULATION (MCMANUS, PL-8, DIS# 4322-78)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Unit shall be exclusively gas/casing gas-fired and have no provisions for oil firing. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10; 0.045 lb/MMBtu, SOx (as SO2); 0.062 lb/MMBtu, NOx (as NO2); 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC; 0.005 lb/MMBtu, or CO; 26.7 ppmv @ 3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MBBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARE Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 160, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District shall be notified 30 days prior to any compliance source test, and a source test plan shall be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days after. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, monthly fuel gas and casing gas sulfur content and BTU content, and source of casing gas. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rules 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppm shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1681 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. Permittee shall maintain records of annual heat input (lA/MBtu) 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-108.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-995-10

EXPIRATION DATE: 02/28/2017

SECTION: 03  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 35 STEAM DRIVE WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

5. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA-453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

6. VOC emission rate shall not exceed 52.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

8. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

9. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.

These terms and conditions are part of the Facility-wide Permit to Operate.
10. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

13. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

16. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.5 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
19. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

22. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

24. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a V0C collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

33. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. The results of gauge tank TV testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 5.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.19 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

40. 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- nor over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E26) as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 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.
42. 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] Federally Enforceable Through Title V Permit

43. 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] Federally Enforceable Through Title V Permit

44. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

45. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

46. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

47. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

48. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

49. Formerly permit number S-1109-110-1.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-996-10
EXPIRATION DATE: 02/28/2017
SECTION: 02  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 40 STEAM DRIVE WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (KCL 2)

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC emission rate shall not exceed 37.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

7. Implementation of the proposed abandonment of the well casing collection system shall conform to a District-approved well vent abandonment plan. [District Rule 2201] Federally Enforceable Through Title V Permit

8. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

9. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

10. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
11. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the well that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

13. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

14. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

16. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

17. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.5 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

22. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

25. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. 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] Federally Enforceable 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. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

33. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

36. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. If approved by EPA, ARB, and the APCO, an operator that do not comply with the annual testing requirements of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

40. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 5.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

41. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

42. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E261 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 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.
43. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

44. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit.

45. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

46. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

47. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

48. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

49. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

50. Formerly permit number S-1109-111-0.

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

PERMIT UNIT: S-1131-997-10
EXPIRATION DATE: 02/28/2017
SECTION: SE13    TOWNSHIP: 28S    RANGE: 27E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR THERMOTICS NATURAL GAS/CASING GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME BURNER WITH FLUE GAS RECIRCULATION (FGR) AND AN OXYGEN CONTROLLER/ANALYZER (ANGUS 2, DIS# 4509-81)

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 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

4. Emissions from the steam generator shall not exceed any of the following limits: 0.075 lb-NOx/MMBtu, 0.045 lb-PM10/MMBtu, or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 27 ppmvd CO @ 3% O2 or 0.02 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

6. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5, and 4306, 5.3] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; and 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

9. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lb-NOx/day or 30.0 lb-CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. 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 4305, 6.3; 4366, 6.3; and 4351, 6.3.1] Federally Enforceable Through Title V Permit

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

12. 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

13. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

14. 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

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

16. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except 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. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; and 4306, 6.2] Federally Enforceable Through Title V Permit

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

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

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 50 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5; and 4306, 5.5] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx and CO 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type 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, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

32. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulf content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. 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

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

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

36. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

37. Formerly S-1109-118.

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

1. No modification to this unit shall be performed without an Authority to Construct for such 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.007 lb/MMBtu; SOx (as SO2): 0.030 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2, and 4305] Federally Enforceable Through Title V Permit
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct source test within 60 days of the first exceedence to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 40]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on FUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.60 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtuc rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-121.

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

PERMIT UNIT: S-1131-999-9                EXPIRATION DATE: 02/28/2017
SECTION: SE19   TOWNSHIP: 28S   RANGE: 28E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL GLE MAGNA-FLAME (OR DISTRICT APPROVED EQUIVALENT), OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (RAMBLER, R-7, DIS# 12466-82)

PERMIT UNIT REQUIREMENTS

1. The operator shall fire the unit only on natural gas and gas from the following permit units: PTO S-1131-598, '885, '832, '958, '966, '1007, and '1008. The combined sulfur content of all fuels supplied to this steam generator shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit

2. Steam generator shall be equipped with operational gas volume flowmeters that measures each the fuel gas and the vapor recovery gas volume sent to the steam generator. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

3. Emission rates shall not exceed any of the following limits: 0.007 lb-PM10/MMBtu or 0.006 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Except during startup and shutdown, emissions shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu and 25 ppmvd CO @ 3% O2 or 0.0185 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

5. During start-up and shutdown periods, emissions from the natural gas/vapor recovery gas-fired steam generator shall not exceed either of the following limits: 0.1 lb/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Including startup and shutdown periods, maximum emissions from the steam generator shall not exceed any of the following limits: 0.1 lb-NOx/MMBtu, 54.0 lb-NOx/day, 9,855 lb-NOx/year, 0.084 lb-CO/MMBtu, 21.0 lb-CO/day, and 7,665 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

7. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5, 6.1; 4306, 5.3, 6.1; and 4320, 5.6, 6.1] Federally Enforceable Through Title V Permit

8. 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 Rules 4305, 3.21, 3.25; 4306, 3.22, 3.25; and 4320, 3.25, 3.29] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. 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 36 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4326. [District Rules 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

11. Source testing to measure 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 4305, 6.3; and 4306, 6.3] Federally Enforceable Through Title V Permit

12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4520, 5.2 and 5.7] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. 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 quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 4326, 5.2 and 5.7] 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 test methods referenced in this permit. [District Rule 2520, 9.3] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100; NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 190; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, fuel gas sulfur content and EPA Method 19 to calculated emissions; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D1072, D3246, D4084, D6228, or grab sample analysis by double GC; Fuel Gas HHV - ASTM D1826 or D1945 in conjunction with ASTM D3588. PM10 (lb/scf) - EPA Methods 5 (both filterable and condensible), 201A and 202, or CARB Method 5; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4. [District Rules 1081; 4305, 6.2; 4306, 6.2; and 4320, 6.2] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4; and 4306, 5.4] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by the District. Source testing for compliance demonstration shall be conducted by independent testing laboratories, and shall be witnessed, or authorized by District personnel. Sample collection shall be by ARB certified testing laboratory. 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

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall submit an analysis to the District demonstrating compliance with the fuel sulfur content and higher heating value within 60 days of startup and at least once every 12 months. The sulfur content and higher heating value of the fuel shall be determined using the test methods referenced in this permit or certified by a third party fuel supplier. [District Rule 4320, 6.2] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081; 2201; 4305, 5.5; 4306, 5.5; and 4320, 5.8] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain daily records of volume of fuel gas burned, sulfur content as determined by analytical testing or fuel supplier invoices/certifications, and permit number(s) of systems providing gas for incineration. [District Rules 2201; and 4320, 5.2, 5.7] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; 4305, 6.1; 4306, 6.1; and 4320, 6.1] Federally Enforceable Through Title V Permit

26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rule 4201 (as amended December 17, 1992), 4301 (as amended December 17, 1992), 4351 (as amended August 21, 2003), 4406 (as amended December 17, 1992), and 4801 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

27. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electric power for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; and 4320, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. Formerly S-1109-127.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.0065 lb/MMBtu; SOx (as SO2): 0.0083 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.0041 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E orARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 orARB Method 100, stack gas oxygen - EPA Method 3 or 3A orARB Method 100, SOx (lb/MMBtu) -ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
25. 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

26. 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; or 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

27. 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

28. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1582 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or: 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1CE1 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.2.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-128.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1001-10
EXPIRATION DATE: 02/28/2017

SECTION: SE09  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR
W/OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (CHINA 3, DIS#12467-82)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Only PUC quality natural gas and/or scrubbed TEOR gas from Sulfur-Check unit of S-1131-1040 shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Compliance with SOx emission rate shall be demonstrated by daily emission calculations using heating values & amounts of natural gas/TEOR gas burned in this unit and the outlet H2S concentration from Sulfur Check unit of S-1131-1040. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

7. Emission rates shall not exceed: PM10: 0.006 lb/MMBtu; SOx (as SO2): 0.008 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.041 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305,
and 4351] Federally Enforceable Through Title V Permit

8. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

11. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2523, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

14. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel type, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

17. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 19, CO2 (ppmv) - EPA Method 10 or ARL Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and A Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

19. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2525, 9.3.2] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

23. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

25. 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 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
26. 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

27. 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; or 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

28. 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

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

30. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [ Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

32. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

35. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] 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.
36. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

37. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1061 (Amended December 15, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.2.2] Federally Enforceable Through Title V Permit

38. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. 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

40. Permittee shall maintain records of annual heat input (MBtu) 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 4320, 5.3] Federally Enforceable Through Title V Permit

41. Formerly S-1109-129.
PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month period that the unit is operated (or as approved by the District). [District Rule 2201] Federally Enforceable Through Title V Permit

5. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission factors for this unit shall not exceed any of the following: PM-10: 0.006 lb/MMBTU, SOx (as SO2): 0.005 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.003 lb/MMBTU, or CO: 0.002 lb/MMBTU or 3 ppmvd @3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.

These terms and conditions are part of the Facility-wide Permit to Operate.
10. Compliance source testing for NOx and CO shall be conducted not less than once every 12 months, except as provided below. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit

11. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

12. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source test results from an individual unit that is identical to this unit, in terms of rate capacity, operational conditions, fuel used, and control method, as approved by the APCD, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

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

15. 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

16. The results of each source test shall be submitted to the District within 90 days thereof. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Compliance with SOx emission limits shall be demonstrated by natural gas sulfur content analysis at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx (ppmv), EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv), - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(As Amended December 19, 1992). [District Rule 1081] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

23. When complying with sulfur emissions 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
24. When complying with SO\textsubscript{x} emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or 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

25. If the unit is fired on noncertified gaseous fuel and compliance with SO\textsubscript{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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO\textsubscript{x} and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO\textsubscript{x} 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, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NO\textsubscript{x} and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NO\textsubscript{x} and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NO\textsubscript{x} and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NO\textsubscript{x} and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. Nitrogen oxide (NO\textsubscript{x}) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO\textsubscript{2}/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 10.31 (Amended December 15, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4320, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

37. 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 4320, 5.3] Federally Enforceable Through Title V Permit

38. Formerly permit number S-1109-135-14.

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
5-1131-1002-0 Jan 17 2012 8:55AM - RICHARDX
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1003-9

EXPIRATION DATE: 02/28/2017

SECTION: SW34  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR W/ OXYGEN CONTROLLER/ANALYZER, FLUE GAS RECIRCULATION (HOPCO, H-3, DIS# 39455-87)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit.

2. 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 Rule 4306] Federally Enforceable Through Title V Permit.

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit.

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit.

6. Emission rates shall not exceed: PM10: 0.007 lb/MMBtu; SOx (as SO2): 0.030 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit.

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit.

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit.

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit.

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2, and 4305] Federally Enforceable Through Title V Permit.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months except as provided below. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081, and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
S-1131-1003-8 Jan 17 2012 8:55AM -- RICKACEK
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4331, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-136.

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

1. No modification to this unit shall be performed without an Authority to Construct for such 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Only PUC-quality natural gas or a combination of natural gas and casing gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Testing for fuel gas and casing gas sulfur and BTU content shall be conducted no less than monthly. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission rates shall not exceed: PM10: 0.007 lb/MMBtu; SOx (as SO2): 0.030 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2; VOC: 0.006 lb/MMBtu; or CO: 18.7 ppmv @ 3% O2. [District Rules 2201, 4305 and 4351] Federally Enforceable Through Title V Permit

7. Except during periods of steam generator startup/shutdown, steam generator shall not be operated unless flue gas recirculation system is operating. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. Steam generator may be equipped with a programmable logic controller (PLC). [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

9. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rules 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, NOx (ppmv) - EPA Method 10 or ARB Method 30, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules: 1081, 4305 and 4351] Federally Enforceable Through Title V Permit

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

18. The District must be notified not less than 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Permittee shall maintain daily records of volume of fuel gas and casing gas burned, source of casing gas, and monthly fuel gas and casing gas sulfur content and BTU content. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

22. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

24. 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 testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
25. 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

26. 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; or 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

27. 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

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

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

36. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 10C.1 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. 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 NCx emission limit listed in Rule 4320. [District Rule 4320, 5.3] Federally Enforceable Through Title V Permit

39. 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 4320, 5.3] Federally Enforceable Through Title V Permit

40. Formerly S-1109-137.

These terms and conditions are part of the Facility-wide Permit to Operate.
PERMIT UNIT: S-1131-1007-9

EXPIRATION DATE: 02/28/2017

SECTION: 20  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 170 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM (MARCO A&B LEASE) (WILMAR LEASE)

PERMIT UNIT REQUIREMENTS

1. Volatile Organic Compound (VOC) emissions shall not exceed 292.6 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit


6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attendance service or repair of the well provided such activity is done in accordance with the requirements of this permit. [District Rule 4401, 5.1 and 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.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified, with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualize (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells vents to determine whether control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E265 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (v/v, %) 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 E265 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
43. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly permit number S-1109-172-5.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1008-9    EXPIRATION DATE: 02/28/2017
SECTION: 19    TOWNSHIP: 28S    RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 118 STEAM DRIVE WELLS SERVED BY WELL VENT VAPOR CONTROL SYSTEM INCLUDING GAS/LIQUID SEPARATORS, HEAT EXCHANGER, VAPOR COMPRESSOR, CONDENSERS, AND OPTIONAL H2S SCRUBBING SYSTEM FOR CORROSION CONTROL WITH NON-CONDENSABLE VAPOR PIPED TO SG'S S-1131-987, -990, -999, AND -1000, AND/OR FLARE S-1131-1085, OR SERVED BY VAPOR-CONTROLLED STATION 36 TANKS (RAMBLER LEASE)

PERMIT UNIT REQUIREMENTS

1. Well vents shall include provisions for collection and incineration of vapor in District-approved well vent vapor control system. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Final vapor condenser shall be equipped with an operational exhaust gas temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Condensate shall discharge to existing dehydration tanks only. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC emissions associated with the components added for the installation of sulfur scrubber vessel shall be less than 0.50 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. To verify compliance with the VOC emissions limit established for the sulfur scrubber vessel installation, permittee shall maintain an accurate count and estimate of emissions for the added components in gas/light liquid service, in accordance with CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Volatile Organic Compound (VOC) emissions shall not exceed 85.2 lb VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. To verify compliance with the VOC emissions limit of this permit, permittee shall maintain an accurate count and estimate of emissions of the components in gas/light liquid service, in accordance with CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2c (Feb 1999), Screening Value Range emission factors < 10,000 ppmv (non-leaking) and > 10,000 ppmv (leaking). Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit

9. At least once per year, components in gas/light liquid service shall be inspected for leaks, visually and in accordance with EPA Method 21, with an instrument calibrated with methane, to ensure compliance with the provisions of this permit. [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. Upon detection of a leak greater than 10,000 ppmv or 3 drops per minute, facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Any component leak greater than 10,000 ppmv or 3 drops per minute shall be repaired to a leak-free condition within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following: type of component leaking; date and method of detection; date and type of repair made and the emission level after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Well casing vents or downstream valves may be closed if the well is idle or if the well is producing to tanks S-1131-598, -629, -630, -638, -641, -650, -651, and -1097 that are vented to an approved operational vapor collection and control system achieving 99% control. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall maintain a current listing of all wells connected to the well vent vapor control system including whether the well vent or a downstream valve is currently closed or open. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

15. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.1.3.4. and 3.5] Federally Enforceable Through Title V Permit

16. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

17. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 5.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

18. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

19. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

20. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

21. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
22. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

23. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

24. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

25. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

26. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

27. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

28. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

29. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

30. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

31. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable 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. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

34. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VCC collection and control system as defined in Section 3.0 of Rule 4401; or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

35. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leaks greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

36. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

37. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

38. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

39. 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] Federally Enforceable Through Title V Permit

40. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

41. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

42. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

43. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

44. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

45. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
46. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

47. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

48. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] 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] 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] 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] Federally Enforceable Through Title V Permit

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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
53. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection; whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

54. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

55. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

56. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

57. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

58. Formerly permit number S-1109-173-7.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1010-9
EXPIRATION DATE: 02/28/2017

SECTION: 29   TOWNSHIP: 28S   RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL PRODUCTION OPERATION WITH UP TO 37 STEAM ENHANCED OIL PRODUCTION WELLS - CLOSED WELL CASING VENTS, ROUTE PRODUCTION TO VAPOR CONTROLLED TANKS AND EXEMPT EQUIPMENT (PARKER LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 63.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit


6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 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.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totaled more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, an operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system’s control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4358, or a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer’s instruction, as applicable, 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] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable 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. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly S-1109-175-3.
PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 72.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit


6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 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.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-Visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.10 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 2.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E250 as applicable. Analysis of halogenated exerpt compounds shall be performed by using AR3 Method 452. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 24 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 24 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. When 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] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable 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. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly S-1109-176-5.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1012-9
EXPIRATION DATE: 02/28/2017
SECTION: 28 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 126 STEAM ENHANCED WELLS (BISHOP A LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1-1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 216.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit


6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 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.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401, requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio- visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, an operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earliest. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit
43. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly S-1109-184-4.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1013-9
EXPIRATION DATE: 02/28/2017
SECTION: 28  TOWNSHIP: 28S  RANGE: 28E
EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 73 STEAM ENHANCED WELLS (BISHOP B LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 125.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit


6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 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.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audívelly inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audible 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 the discovery of the leak: I shall not later than 24 hours after the initial inspection but not later than 72 hours after placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
33. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 211] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually the 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 AEEB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analyte/compound to ensure that the VOC concentrations are neither under-reported or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable 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. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly permit number S-1109-185-6.

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

PERMIT UNIT: S-1131-1014-12  EXPIRATION DATE: 02/28/2017
SECTION: 28  TOWNSHIP: 28S  RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 40 STEAM ENHANCED WELLS (STAUFFER LEASE)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
4. Volatile organic compound (VOC) emission rate shall not exceed 68.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit
7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.
These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are replaced, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: (a) 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. Any audio-visual inspection of an accessible operating pump, compressor, or PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4-51, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the P:DC that released. An operator shall submit such information recorded during the calendar year to the APCO 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARE. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage c. Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E269 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

---

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly S-1109-201-1.

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

PERMIT UNIT: S-1131-1016-10
EXPIRATION DATE: 02/28/2017
SECTION: SE13  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 62.5 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED STEAM GENERATOR NORTH AMERICAN BURNER (MODEL NA 5131GCR-62.5) AND FLUE GAS RECIRCULATION (ANGUS)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. 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 Rule 4306] Federally Enforceable Through Title V Permit

4. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month period that the unit is operated (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

5. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

6. Emission factors for this unit shall not exceed any of the following: PM-10: 0.045 lb/MMBTU, SOx (as SO2): 0.0673 lb/MMBTU, NOx (as NO2): 0.036 lb/MMBTU or 30 ppmvd @3% O2, VOC: 0.006 lb/MMBTU, or CO: 0.020 lb/MMBTU or 27 ppmvd @3% O2. [District Rule 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

7. The stack concentration of NOx (as NO2), CO and O2 shall be measured at least on a monthly basis using district approved portable analyzers in any calendar month in which the unit operates. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

8. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2 and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for district inspection upon request. [District Rule 2520, 9.3.2, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

9. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the permitted emission limits, the permittee or third party shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed the permitted emission limits after one (1) hour, the permittee shall conduct a source test within 60 days, of the first exceedance to demonstrate compliance with the permitted emission limits. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
10. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, or other test methods approved by the District. [District Rules 1081, 4305, and 4351] Federally Enforceable Through Title V Permit

11. Compliance source testing for fuel gas sulfur content shall be conducted at least once every 12 months (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted within 60 days of startup, and not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2, 4305 and 4351] Federally Enforceable Through Title V Permit

13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

14. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

15. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

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

17. 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

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 19, 1993). [District Rule 1081 and Kern County Rules 108.1] Federally Enforceable Through Title V Permit

20. 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 noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Particulate matter emissions shall not exceed 0.1 grain/dscf, 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

22. 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 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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. 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

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

27. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersed a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit

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

33. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rule 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

37. 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 4320, 5.3] Federally Enforceable Through Title V Permit

38. Formerly S-1109-221-15.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1017-9  EXPIRATION DATE: 02/28/2017
SECTION: SE13  TOWNSHIP: 28S  RANGE: 27E
EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 31 STEAM DRIVE WELLS AND 12 CYCLIC WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. Operation shall include no more than 31 steam drive crude oil production wells with closed casing vents and 12 cyclic crude oil production wells with closed casing vents [District Rule 2201] Federally Enforceable Through Title V Permit

2. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by an Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Steam-enhanced production wells with closed well casing vents shall each have a visible identification number. Field personnel shall be provided with written instructions concerning proper operation and maintenance of the closed casing vent wells. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain a current and accurate list of all steam-enhanced wells with closed casing vents authorized by this permit and shall update the list whenever a well is added, replaced, or deleted. Upon request, the current list of wells authorized by this permit shall be submitted to the District's Compliance Division. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Permittee shall retain copies of all previous lists of steam-enhanced wells with closed casing vents authorized by this permit and shall make such lists readily available for District inspection upon request for a period of at least five (5) years. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999); detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Flanges shall be inspected with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [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. Valves shall be inspected with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit

11. Polished rod stuffing boxes and all other components shall be inspected at all points of possible emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Volatile organic compound (VOC) emission rate shall not exceed 88.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.7.3, 3.4, and 3.5] Federally Enforceable Through Title V Permit

14. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

15. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

16. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

17. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

18. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

19. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

20. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

21. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

22. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
23. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

25. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

26. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

27. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

28. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

29. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

31. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

33. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
34. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

35. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

36. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

37. 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] Federally Enforceable Through Title V Permit

38. 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 V2C collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

40. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

41. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

42. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

43. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

44. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

45. If approved by EPA, ARB, and the AFCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection system are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

46. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
47. 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] Federally Enforceable Through Title V Permit

48. 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] Federally Enforceable Through Title V Permit

49. 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] Federally Enforceable Through Title V Permit

50. 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] Federally Enforceable Through Title V Permit

51. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

52. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

53. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

54. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

55. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

56. Formerly permit number S-1109-222-5.

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

PERMIT UNIT: S-1131-1019-3

SECTION: SE13  TOWNSHIP: 28S  RANGE: 27E

EQUIPMENT DESCRIPTION:
NON-COMPLIANT DORMANT 2.7 MMBTU/HR C.E. NATCO GAS/CASING GAS-FIRED HEATER TREATER (ANGUS)

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 2070] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4307] 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 4307 and all other applicable District regulations. [District Rule 4307] Federally Enforceable Through Title V Permit

4. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5 and 3.0%. If not utilized, excess air shall be maintained at no less than 15%. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Compliance source testing for NOx, CO and fuel gas sulfur content shall be conducted at least once every 12 month period that the unit is operated (or as approved by the District). [District Rule 1081] Federally Enforceable Through Title V Permit

6. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

7. Emission factors for this unit shall not exceed any of the following: PM-10: 0.045 lb/MMBTU, SOx (as SO2): 0.0328 lb/MMBTU, NOx (as NO2): 0.117 lb/MMBTU, VOC: 0.014 lb/MMBTU, or CO: 0.036 lb/MMBTU. [District Rule 2201] Federally Enforceable Through Title V Permit

8. 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

9. Copies of all test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. 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

11. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions. [District Rule 4201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Emissions 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] Federally Enforceable Through Title V Permit

13. 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

14. 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; or 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 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

15. 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

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

17. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [Kern County Rule 407]. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Source testing shall be performed for NOx (ppmv) according to EPA Method 7E (or ARB Method 100) and EPA Method 10 (or ARB Method 100) for CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMMBtu rates shall be calculated as lb NO2/MMMBtu of heat input (hhv). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. In years that the equipment is operated, NOx, and CO emissions shall be measured with annual source testing conducted by independent testing laboratory and shall be witnessed or authorized by the District. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted; and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 66.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain, for a period of at least five years, accurate records of well casing fugitive components and well casing vent piping fugitive component counts and leak screening values, and calculate fugitive emissions using District-approved emission factors. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

7. 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

8. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [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. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit

11. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

12. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

13. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

14. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells is closed, and the vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

15. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

16. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

17. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

18. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

19. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

20. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
22. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

25. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

26. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

28. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit
33. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

40. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

41. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

42. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

43. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 5.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit
44. 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 0 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] Federally Enforceable Through Title V Permit

45. 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] Federally Enforceable Through Title V Permit

46. 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] Federally Enforceable Through Title V Permit

47. 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] Federally Enforceable Through Title V Permit

48. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

49. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

50. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

51. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

52. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

53. Formerly S-1109-335-4.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1032-7
EXPIRATION DATE: 02/28/2017

SECTION: 10  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WITH 30 STEAM-ENHANCED OIL PRODUCTION WELLS WITH CLOSED WELL CASING VENTS - RODGERS LEASE

PERMIT UNIT REQUIREMENTS

1. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Permittee shall maintain a current listing of all steam-enhanced wells in the central Kern County fields heavy oil production stationary source with closed casing vents that direct fluids to uncontrolled storage tanks and a current listing of all permit numbers of front-line equipment receiving produced fluids from the wells; shall update the list whenever a well or front-line equipment is added, replaced or deleted, and shall make such listing readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Any increase to the maximum number of steam enhanced oil production wells with closed casing vents shall require prior authorization by Authority to Construct or APCO approval of application for transfer of ownership of Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit

4. Volatile organic compound (VOC) emission rate shall not exceed 66.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Permittee shall maintain, for a period of at least five years, accurate records of well casing fugitive components and well casing vent piping fugitive component counts and leak screening values, and calculate fugitive emissions using District-approved emission factors. Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

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

8. Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA/CARB's California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February, 1999): detection instrument shall be calibrated with methane; instrument flow rate range shall be maintained at 0.7 to 1.2 liters per minute; 5 second response time to maximum reading shall be achieved; instrument probe outside diameter of 3/16 inch; and background screening distance shall be no less than 25 centimeters. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [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. Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District Rule 2201] Federally Enforceable Through Title V Permit

11. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

12. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

13. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

14. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

15. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended line, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

16. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,900 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

17. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

18. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

19. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

20. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
22. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-Visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

25. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

26. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

28. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

32. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable 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. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

34. 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] Federally Enforceable Through Title V Permit

35. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit

36. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

40. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

41. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 5.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

42. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

43. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.19 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit
44. 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 analytic compound to ensure the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

45. 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] Federally Enforceable Through Title V Permit

46. 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] Federally Enforceable Through Title V Permit

47. 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] Federally Enforceable Through Title V Permit

48. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

49. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

50. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

51. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

52. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

53. Formerly S-1109-336-3.

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

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

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, ‘-629, ‘-630, ‘-638, ‘-641, ‘-650, ‘-651 and ‘-1097, that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

3. VOC emission rate shall not exceed 82.9 lb/day, [District Rule 2201] Federally Enforceable Through Title V Permit

4. Permittee shall maintain with the permit accurate fugitive component counts. Fugitive VOC emissions shall be 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

5. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

7. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

8. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

9. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

12. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visual (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operators shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
20. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

21. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

23. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

34. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4333, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

39. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used: EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- nor over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 204-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 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.
43. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

45. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

46. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

47. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

48. Formerly permit number S-1109-356-1.

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

1. Well casing vents shall remain closed at all times except during periods of actual service or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097 that are vented to an approved operational vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by District Rule 2020, Section 6.6 (Amended March 21, 2002). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions according to Table 2-4 (Oil and Gas Production Operations Average Emission Factors) of USEPA's protocol for Equipment Emission Estimates - EPA -453/R-95-017. [District Rule 2201] Federally Enforceable Through Title V Permit

4. VOC emission rate shall not exceed 51.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,900 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. 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 suspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, an operator shall perform the following: initially inspect each PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

32. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4041 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (April - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions, 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] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector’s name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit number S-1109-357-1.

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

1. Emissions from each closed casing vent well covered by this permit shall not exceed 0.0216 lb VOC/hr-well for components and 0.0194 lb VOC/hr-well for polished rod stuffing boxes. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents shall be introduced only to tanks vented to a District approved vapor collection and control system, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6 (Amended August 18, 2011). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Well casing vents shall remain closed at all times except during periods of actual service or repair when wells are not producing. [District Rule 2201] Federally Enforceable Through Title V Permit

4. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

5. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

6. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

7. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

8. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

11. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

14. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visualy (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD no earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, a component shall include a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

19. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
20. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

21. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

22. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

28. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

29. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

32. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

33. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
34. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system’s control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

35. 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 unconfined VOC emissions collected by a vapor collection system are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4333, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. 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. 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] Federally Enforceable Through Title V Permit

38. 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] Federally Enforceable Through Title V Permit

39. 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 the 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] Federally Enforceable Through Title V Permit

40. 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] Federally Enforceable Through Title V Permit
41. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

42. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

43. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

44. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

45. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

46. Formerly permit number S-1109-361-1.

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

PERMIT UNIT: S-1131-1037-9
SECTION: NW10 TOWNSHIP: 29S RANGE: 28E
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
249.0 MMBTU/HR (NOMINAL RATING), 20 MW GENERAL ELECTRIC GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH SCR, AMMONIA STORAGE AND DISTRIBUTION SYSTEM, CO CATALYTIC CONVERTER AND CEM SYSTEM FOR NOX, CO AND O2

PERMIT UNIT REQUIREMENTS

1. Cogeneration system shall include General Electric model LM-2500PE gas turbine, generator set rated at 22.89 MW, turbine combustor and compressor water injection systems, SCR, CO catalyst, and CEM's for NOX, CO, & O2. [40 CFR 64 and District Rule 2201] Federally Enforceable Through Title V Permit

2. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Ammonia injection rate shall be controlled to maintain ammonia breakthrough to less than 20 ppmv. [District Rule 4102]

4. If water injection, SCR, or CO catalyst is inoperative, turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

5. All turbine exhaust shall flow through both catalyst beds. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Gas turbine engine exhaust may be diverted to bypass stack during cold engine startup. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [District Rule 1100] Federally Enforceable Through Title V Permit

8. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [40 CFR 60.334 (b); 40 CFR 60; and District Rule 1080] Federally Enforceable Through Title V Permit

9. Except days with periods of startup/shutdown, emission rates shall not exceed any of the following: PM10: 77.7 lb/day, SOx (as SO2): 29.9 lb/day, NOx (as NO2): 110.0 lb/day, VOC: 239.0 lb/day, or CO: 160.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. 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] Federally Enforceable Through Title V Permit

11. Except during periods of startup/shutdown, emission rates shall not exceed any of the following: PM10: 0.013 lb/MMBTU, SOx (as SO2): 0.005 lb/MMBTU, or VOC: 0.040 lb/MMBTU. [40 CFR 60.333(a) and (b) and District Rule 2201] Federally Enforceable Through Title V Permit

12. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBTU or 5 ppmvd @ 15% O2, or CO: 12 ppmvd @ 15% O2. [District Rules 2201; and 4703, 5.1, 5.2, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2. [40 CFR 60.332(a)] Federally Enforceable Through Title V Permit

14. Except during periods of gas turbine engine startup/shutdown, water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Except during periods of gas turbine engine startup/shutdown, inlet gas temperature to the catalyst beds shall be maintained within the range as recommended by the catalyst manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit

16. The duration of each startup or shutdown shall not exceed two hours. [40 CFR 60.2; and District Rule 4703, 5.3] Federally Enforceable Through Title V Permit

17. 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. [District Rule 4703, 3.29] Federally Enforceable Through Title V Permit

18. 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 4703, 3.26] Federally Enforceable Through Title V Permit

19. Bypass transition period is defined as the duration of time that a gas turbine's operation transitions between the heat recovery steam generator and bypass exhaust stacks, provided that the SCR catalyst is not within the required temperature range or the required ammonia saturation level has not yet been achieved; and NOx emissions shall not exceed 15 ppmvd @ 15% O2 averaged over 2 hours; and the duration of a bypass transition period shall not exceed two hours except during black start period. [District Rule 4703, 3.2] Federally Enforceable Through Title V Permit

20. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703, 3.23] Federally Enforceable Through Title V Permit

21. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2] Federally Enforceable Through Title V Permit

23. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

24. The owner or operator shall maintain a stationary gas turbine system operating log that includes, in a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start), shutdown, and bypass transition time period. [District Rule 4703, 6.2] Federally Enforceable Through Title V Permit

25. Compliance source testing for NOx, CO, VOC, NH3 and fuel gas sulfur content shall be conducted at least once every 12 months. [40 CFR 60.335(a) and District Rules 1081; and 4703, 3.6, 6.3] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front and back half) or 201 and 202a; Ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20 or CARB Method 100; and HHV and LHV - ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [40 CFR 60.335(a) and (b)(1) and District Rules 1081; and 4703, 6.4] Federally Enforceable Through Title V Permit

27. CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

28. Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and 40 CFR 64] Federally Enforceable Through Title V Permit

29. If the turbine is not fired on PUC-regulated or FERC-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(h)(3)] Federally Enforceable Through Title V Permit

30. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, then a fuel sample shall be collected during the source test to determine the sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

31. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOX concentration or diluent O2 (or both). [40 CFR 60.334(j)(ii)(B)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

33. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

34. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, and NSPS emission rate on a four hour average. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit

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

37. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D4084, D5504, D6228, Gas Processors Association Standard 2377 or double GC for H2S and mercaptans. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
38. 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(a)(3)] Federally Enforceable Through Title V Permit.

39. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080] Federally Enforceable Through Title V Permit.

40. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit.

41. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.335(a), (b)(7); and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit.

42. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1060, and emission measurements. [40 CFR 60.7 (b); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit.

43. Permittee shall maintain accurate records of ammonia consumption and all maintenance activities related to this unit. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit.

44. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 2201] Federally Enforceable Through Title V Permit.

45. Audits of monitors shall be conducted annually by an independent testing lab in accordance with EPA guidelines, witnessed or authorized by the District, and reports shall be submitted to the District within 60 days of audit. [District Rule 1080] Federally Enforceable Through Title V Permit.

46. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)(3)(D)] Federally Enforceable Through Title V Permit.

47. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit.

48. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [40 CFR 64 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit.

49. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit.

50. Formerly S-1109-362-18.

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

PERMIT UNIT: S-1131-1038-8  EXPIRATION DATE: 02/28/2017
SECTION: NW10  TOWNSHIP: 29S  RANGE: 28E

EQUIPMENT DESCRIPTION:
DORMANT 58.2 MMBTU/HR (NOMINAL RATING), 4.0 MW ALLISON MODEL 501-KB5 GAS-FIRED TURBINE ENGINE COGENERATION SYSTEM WITH WATER INJECTION, HEAT RECOVERY STEAM GENERATOR, AND CEM SYSTEMS FOR NOX, CO, AND O2

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] 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 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit

4. Either conventional or pilotless fuel nozzles may be used. [District Rule 2010] Federally Enforceable Through Title V Permit

5. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

6. If water injection is inoperative, turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Turbine shall not burn more than 1.33 MMscf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit

8. All turbine exhaust shall flow to heat recovery steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [40 CFR 60.334 (b); 40 CFR 60; and District Rule 1080] Federally Enforceable Through Title V Permit

10. Unit shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 17.9 lb/day, SOx (as SO2): 8.4 lb/day, NOx (as NO2): 180.2 lb/day, VOC: 48.9 lb/day, or CO: 125.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: PM10: 0.0128 lb/MMBTU, SOx (as SO2): 0.006 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or 38 ppmvd @ 15% O2, VOC: 0.035 lb/MMBTU, or CO: 40 ppmvd @ 15% O2. [40 CFR 60.333(a) and (b) and District Rules 2201; and 4703] Federally Enforceable Through Title V Permit

14. NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2. [40 CFR 60.332(a)] Federally Enforceable Through Title V Permit

15. 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] Federally Enforceable Through Title V Permit

16. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during periods of gas turbine engine startup/shutdown, gas turbine water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Reduced load period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.16] Federally Enforceable Through Title V Permit

19. 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 Rule 4703, 3.21] Federally Enforceable Through Title V Permit

20. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Compliance source testing for NOx, CO, fuel gas sulfur content, and demonstrated percent efficiency of gas turbine engine shall be conducted at least once every 12 months. [District Rule 2201; and 4703] Federally Enforceable Through Title V Permit

22. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

24. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

25. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

26. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

27. If monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrates, etc.) or, if such data is not available, for the four days of operation preceding the breakdown. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Audits of monitors shall be conducted at least once every 12 months by independent testing lab in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to District within 60 days of audit. [District Rule 2201] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. If the turbine is not fired on PUC-regulated or FERC-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(h)(3) and (i)(3)(i)] Federally Enforceable Through Title V Permit

31. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, then a fuel sample shall be collected during the source test to determine the sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667, or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front and back half) or 201 and 202a; Ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20 or CARB Method 100; and HHV and LHV - ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [40 CFR 60.335(a) and (b)(1) and District Rules 1081; and 4703, 6.4] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of quantity of fuel used per day, all maintenance activities related to this unit, and date and time of fuel nozzle replacement, and type of fuel nozzle installed. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Operator shall install, operate and maintain in calibration a system which continuously measures and records: control system operating parameters, elapsed time of operation, and the exhaust gas NOx concentration at 15% O2 on a dry basis. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

35. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

36. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2] Federally Enforceable Through Title V Permit

37. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these runs can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(2)] Federally Enforceable Through Title V Permit

38. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j1)(iii)(B)] Federally Enforceable Through Title V Permit

39. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080] Federally Enforceable 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. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1085, and emission measurements. [40 CFR 60.7 (b); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

41. Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and §6 CFR 64] Federally Enforceable Through Title V Permit

42. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

43. Operator shall submit a semi-annual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(i)(3)(D)] Federally Enforceable Through Title V Permit

44. CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

45. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j)(5); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

46. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

47. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [40 CFR 64 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

48. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

49. Formerly S-1109-373-15.

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

1. No modification to this unit shall be performed without an Authority to Construct for such 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 4703] 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 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit

4. Either conventional or pilotless fuel nozzles may be used. [District Rule 2010] Federally Enforceable Through Title V Permit

5. Lube oil cooler/accumulator shall be equipped with device to prevent detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

6. If water injection is inoperative, turbine shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Turbine shall not burn more than 1.33 MMscf/day of natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit

8. All turbine exhaust shall flow to heat recovery steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit

9. CEM equipment shall be maintained and calibrated according to EPA guidelines specified in CFR Part 60, Appendix B. [40 CFR 60.334 (b); 40 CFR 60; and District Rule 1080] Federally Enforceable Through Title V Permit

10. Unit shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Gas turbine engine exhaust may be diverted to bypass stack under Rule 1100 (Equipment Breakdown), provided all applicable record keeping and reporting requirements of Rule 1100 are fulfilled. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rates shall not exceed any of the following: PM10: 17.9 lb/day, SOx (as SO2): 8.4 lb/day, NOx (as NO2): 180.2 lb/day, VOC: 48.9 lb/day, or CO: 125.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Except during periods of startup/shutdown, emission rates (3-hour rolling average) shall not exceed any of the following: PM10: 0.0128 lb/MMBTU, SOx (as SO2): 0.006 lb/MMBTU, NOx (as NO2): 0.129 lb/MMBTU or 38 ppmvd @ 15% O2, VOC: 0.035 lb/MMBTU, or CO: 40 ppmvd @ 15% O2. [40 CFR 60.333(a) and (b) and District Rules 2201; and 4703] Federally Enforceable Through Title V Permit

14. NOx emission rate (one hour average) shall not exceed the NSPS standard of 150 ppmvd @ 15% O2. [40 CFR 60.332(a)] Federally Enforceable Through Title V Permit

15. 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] Federally Enforceable Through Title V Permit

16. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during periods of gas turbine engine startup/shutdown, gas turbine water injection rate shall be maintained at water-to-fuel ratio documented to achieve compliance with emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Reduced load period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.16] Federally Enforceable Through Title V Permit

19. Thermal stabilization period shall be defined as the startup or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703, 3.21] Federally Enforceable Through Title V Permit

20. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Compliance source testing for NOx, CO, fuel gas sulfur content, and demonstrated percent efficiency of gas turbine engine shall be conducted at least once every 12 months. [District Rules 2201; and 4703] Federally Enforceable Through Title V Permit

22. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

23. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.3] Federally Enforceable Through Title V Permit

24. Except during periods of thermal stabilization or reduced loads, NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 2 hour rolling average basis. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

25. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three-hour rolling average, NSPS emission rate on one hour average, and DE of NOx & CO during days of gas turbine engine startup/shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit

26. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions. [District Rule 2201] Federally Enforceable Through Title V Permit

27. If monitoring provisions fail, the emissions shall be calculated on operational data (steam production rate, inlet air and exhaust gas flowrates, etc.) or, if such data is not available, for the four days of operation preceding the breakdown. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Audits of monitors shall be conducted at least once every 12 months by independent testing lab in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to District within 60 days of audit. [District Rule 2201] Federally Enforceable Through Title V Permit

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
30. If the turbine is not fired on PUC-regulated or FERC-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(h)(3) and (i)(3)(i)] Federally Enforceable Through Title V Permit

31. If the turbine is not fired on PUC-regulated or FERC-regulated natural gas, then a fuel sample shall be collected during the source test to determine the sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667, or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

32. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front and back half) or 201 and 202a; Ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20 or CARB Method 100; and HHV and LHV - ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [40 CFR 60.335(a) and (b)(1) and District Rules 1081; and 4703, 6.4] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of quantity of fuel used per day, all maintenance activities related to this unit, and date and time of fuel nozzle replacement, and type of fuel nozzle installed. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Operator shall install, operate and maintain a system which continuously measures and records: control system operating parameters, elapsed time of operation, and the exhaust gas NOx concentration at 15% O2 on a dry basis. [40 CFR 60.334(a),(b)] Federally Enforceable Through Title V Permit

35. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit

36. The owner or operator shall certify, maintain, operate, and quality-ensure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS pass the relative accuracy requirements and performance specifications of: 40 CFR Part 60, Appendix B and F; 40 CFR Part 51, Appendix P; Performance Specification 2 (PS-2); and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [40 CFR 60.334(b)(1); 40 CFR 64; and District Rules 1080, 6.7; and 4703, 6.2] Federally Enforceable Through Title V Permit

37. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these runs can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(2)] Federally Enforceable Through Title V Permit

38. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)(1)(ii)(B)] Federally Enforceable Through Title V Permit

39. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [40 CFR 64 and District Rule 1080] Federally Enforceable Through Title V Permit
40. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of, any CEM’s that have been installed pursuant to District Rule 1080, and emission measurements. [40 CFR 60.7 (b); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

41. Results of continuous emission monitoring shall be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b)(3) and 40 CFR 64] Federally Enforceable Through Title V Permit

42. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

43. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeded 0.8% by weight. [40 CFR 60.334(i)(3)(D)] Federally Enforceable Through Title V Permit

44. CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

45. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(i)(5); 40 CFR 64; and District Rule 1080] Federally Enforceable Through Title V Permit

46. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit

47. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [46 CFR 64 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit

48. Operators of CEM’s installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

49. Formerly S-1109-374-15.

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

PERMIT UNIT: S-1131-1048-10
EXPIRATION DATE: 02/28/2017
SECTION: SW21 TOWNSHIP: 28S RANGE: 28E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING UP TO 36 STEAM ENHANCED WELLS (OJAI, MELWOOD AND SESAME LEASES)

PERMIT UNIT REQUIREMENTS

1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Fluids produced from these steam-enhanced wells with closed well casing vents and cyclic wells with closed casing vents shall be introduced only to tanks S-1131-598, '629, '630, '638, '641, '650, '651 and '-1097 that are vented to an approved vapor collection and control system achieving 99% control, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. (Amended August 18, 2011). [District Rule 2201] Federally Enforceable Through Title V Permit

3. Permittee shall maintain a current listing of all wells assigned to this permit. The listing shall be updated monthly and made readily available for District inspection upon request. [District Rules 1070 & District Rule 2201] Federally Enforceable Through Title V Permit

4. Well vent vapor control system Volatile organic compound (VOC) fugitive emission rate shall not exceed 28.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

6. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

7. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

8. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
9. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operation as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

10. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

11. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

12. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

13. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

15. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

16. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

17. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

18. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 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.

Facility Name: CHEVRON USA INC
Location: HEAVY OIL CENTRAL, KERN COUNTY, CA
S-1131-1048-10, Rev 17/3/2012 8:03AM - RICK ROX
19. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

21. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

22. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

23. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

24. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

25. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. 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] Federally Enforceable Through Title V Permit

29. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

30. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable 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. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1] Federally Enforceable Through Title V Permit

33. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

36. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

37. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

38. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither underestimated or over-reported. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

39. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

40. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimater or less from the surface of the component interface. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

41. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
42. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

43. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

44. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

45. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

46. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

47. Formerly permit number S-1109-383-3.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1049-4          EXPIRATION DATE: 02/28/2017
SECTION: SE19           TOWNSHIP: 28S         RANGE: 28
EQUIPMENT DESCRIPTION:
1,410 BBL FREE WATER KNOCKOUT VESSEL

PERMIT UNIT REQUIREMENTS

1. When the vent line is open free water knockout vessel, water stand vessel (V-190), and sand jet (V-200) vessel shall only vent to Mecca-Rambler casing vapor recovery system permit unit #S-1131-1008. [District Rules 2201; and 4623, 5.1] Federally Enforceable Through Title V Permit

2. When the vent line for this permit unit is closed, produced fluids shall only be introduced to vapor controlled tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097. [District Rules 2201; and 4623, 5.1] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 95%. [District Rules 2201; and 4623, 5.1] Federally Enforceable Through Title V Permit

4. Components and seals on this vessel shall be maintained leak-free as defined in Rule 4623 (amended 5/19/05). [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC emissions from this unit shall not exceed 3.5 lb/day (fugitive). [District Rule 2201] Federally Enforceable Through Title V Permit

6. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended 12/20/01). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. Leak-free shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

9. The tank shall be inspected at least once each calendar month, except as follows. In the event no leaks are found for two consecutive months, the tank may be inspected once in three months. If a leak is subsequently found, monthly inspections will be resumed until no leaks are found for two consecutive months at which point inspections will again take place once every three months. In addition, repaired leaks will be reinspected within five calendar days after completion of the repair. [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. Pressure relief devices that are designed to relieve pressure in the event of a shutdown of the vapor recovery compressor will be checked within three days of a known or suspected pressure relief event to confirm leak-free closure. The suspected pressure relief events that will trigger inspections are shutdowns of the vapor recovery system. When such an event occurs, the Varec hatches and devices and hinged, unbolted hatch covers on tanks where vapor recovery service was interrupted will be inspected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Liquid vapor condensate pumps installed as part of the vapor collection and control systems will be visually inspected weekly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Vapor collection piping installed as part of the vapor collection and control systems, and the vapor spaces of tanks connected to the vapor collection system will be visually inspected for tears, leaks, holes, or other visible signs of vapor leaks. Seepage of crude oil from the seams of beaded tanks will not be considered to be visual evidence of a vapor leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Inaccessible components will be visually inspected monthly and if no leaks are observed for two consecutive months, those components may be inspected once every three months. Inaccessible components will be monitored annually using EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. A portable hydrocarbon analyzer calibrated against metane will be employed, in accordance with EPA Method 21, to check for leaks in accessible components in vapor collection service, including all threaded and flanged connections in vapor collection piping installed as part of the vapor collection and control systems. Buried lines in vapor collection service will be monitored where the lines emerge from the ground. The probe tip will be placed at the surface of the component interface to be monitored, unless moving parts or foreign substances are present that could interfere with the safe or proper operation of the monitoring equipment. In this case the probe tip will be held within one centimeter of the surface without touching it. A component is any valve, fitting, pump, compressor, hatch, sight glass, meter, pressure relief device or diaphragm. A component is accessible if it is located within 15 feet of the ground or, if higher, within 5 feet of a platform. Buried components are not accessible. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If: (i) a visual inspection reveals a tear, leak, hole, or visible sign of a vapor leak; (ii) a leak is found using EPA Method 21; or (iii) a liquid leak is identified, permittee shall, immediately after identifying the leak, mark the location of the leak with a highly visible, waterproof tag or label noting the date the leak was identified and the classification of the leak; provided, however, that tags or labels will only be required for leaks located in accessible areas and where such tags or labels can be safely applied using readily available equipment such as platforms and ladders. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All leaks will be minimized to the extent practicable within one hour of discovery to stop or reduce emissions to the atmosphere. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Class I leaks, 1,000 to 9,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 14 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Class II leaks, 10,000 to 49,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 5 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Class III leaks, 50,000 ppm VOC as methane (or greater) in accordance with EPA Method 21 and all liquid leaks, shall be repaired within 24 hours of discovery. If the immediate repairs do not eliminate the leak from the component, but do reduce the leak rate for the component to between 1,000 and 10,000 ppm, the leak shall then be treated as a Class II leak and five additional days shall be allowed to perform further repairs to reduce the leak rate below 1,000 ppm. A liquid leak is a visible mist or the dripping of liquid at the rate of more than three drops per minute. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. All leaks that require repair or replacement of "critical components" may be delayed for up to one year or the next shutdown that occur after 30 days from the date of leak discovery, whichever is sooner. If a "critical component" is found to have a Class III leak, permittee will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days after the leak is confirmed through EPA Method 21 to be a Class III leak and will be initiated during the next shutdown period that occurs more than 30 days from the APCD approval. A critical component is any component that would result in a reduction in the daily rate of oil production of 33% or greater for any particular tank site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If a component is found to have five Class II or III leaks within a one-year period, permittee will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days and initiated within 15 days of APCD approval. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Temporary emissions brought about by the repair process (e.g., the necessary opening of valves or hatches for component repair or replacement) are not leaks provided that the total duration of those emissions is less than 24 hours for each repair process. Emissions caused by the automatic opening of pressure relief devices within design specifications are also not leaks. For tears, leaks, holes, or other visible signs of vapor leaks identified in vapor collection piping, components, and vapor spaces of tanks, EPA Method 21 will be utilized within 3 days to determine the magnitude of the leak, and the class of the leak will be based on the levels set forth in this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Inspection and repair records will be maintained for a period of 5 years on paper or electronically. These records will not be included in routine reports to any agency, but will be available to the EPA or the APCD upon request. The records will include: a) Identification of each leaking component by its name, type of component and the tank or unit where it is located. b) The date of leak detection, the method of identification, and the emission level (in ppm, if applicable). c) Date of leak repair. d) Date and emission level of recheck after repair. e) For each site, the total number of components inspected and the total number and percentage of leaking components found. f) Identification and location of critical components found leaking that cannot be repaired for one year or until the next unit turnaround. g) Method used to minimize the leak from a critical component which cannot be repaired for one year or until the next unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. When a Class II or III leak is identified, permittee will notify the APCD of the leak by the close of business within two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. When a critical component leak is identified, permittee will notify the APCD of the leak by the close of business within the next two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. A summary or summaries of the records of leaks developed for condition 25 above will be provided to the APCD within 30 days after the end of each calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

28. The efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 18 or 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

29. The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
31. Formerly S-1109-402-1.
PERMIT UNIT REQUIREMENTS

1. When the vent line is open free water knockout vessel, water stand vessel (V-190) and sand jet (V-200) vessels shall only vent to Mecca-Rambler casing vapor recovery system permit unit #S-1131-1008. [District Rule 2201] Federally Enforceable Through Title V Permit

2. When the vent line for this permit unit is closed, produced fluids shall only be introduced only to vapor controlled tanks S-1131-598, '629, '630, '638, '641, '650, '651, and '1097. [District Rule 2201] Federally Enforceable Through Title V Permit

3. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 95%. [District Rules 2201; and 4623, 5.1] Federally Enforceable Through Title V Permit

4. Components and seals on this vessel shall be maintained leak-free as defined in Rule 4623. [District Rule 2201] Federally Enforceable Through Title V Permit

5. VOC emissions from this unit shall not exceed 1.7 lb/day (fugitive). [District Rule 2201] Federally Enforceable Through Title V Permit

6. The operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended 12/20/01). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

7. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of the API gravity of petroleum liquids stored in this unit to determine which oils are from a common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. Leak-free shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit

9. The tank shall be inspected at least once each calendar month, except as follows. In the event no leaks are found for two consecutive months, the tank may be inspected once in three months. If a leak is subsequently found, monthly inspections will be resumed until no leaks are found for two consecutive months at which point inspections will again take place every three months. In addition, repaired leaks will be reinspected within five calendar days after completion of the repair. [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. Pressure relief devices that are designed to relieve pressure in the event of a shutdown of the vapor recovery compressor will be checked within three days of a known or suspected pressure relief event to confirm leak-free closure. The suspected pressure relief events that will trigger inspections are shutdowns of the vapor recovery system. When such an event occurs, the Varec hatches and devices and hinged, unbolted hatch covers on tanks where vapor recovery service was interrupted will be inspected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. Liquid vapor condensate pumps installed as part of the vapor collection and control systems will be visually inspected weekly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Vapor collection piping installed as part of the vapor collection and control systems, and the vapor spaces of tanks connected to the vapor collection system will be visually inspected for tears, leaks, holes, or other visible signs of vapor leaks. Seepage of crude oil from the seams of bolted tanks will not be considered to be visual evidence of a vapor leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Inaccessible components will be visually inspected monthly and if no leaks are observed for two consecutive months, those components may be inspected once every three months. Inaccessible components will be monitored annually using EPA Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. A portable hydrocarbon analyzer calibrated against methane will be employed, in accordance with EPA Method 21, to check for leaks in accessible components in vapor collection service, including all threaded and flanged connections in vapor collection piping installed as part of the vapor collection and control systems. Buried lines in vapor collection service will be monitored where the lines emerge from the ground. The probe tip will be placed at the surface of the component interface to be monitored, unless moving parts or foreign substances are present that could interfere with the safe or proper operation of the monitoring equipment. In this case the probe tip will be held within one centimeter of the surface without touching it. A component is any valve, fitting, pump, compressor, hatch, sight glass, meter, pressure relief device or diaphragm. A component is accessible if it is located within 15 feet of the ground or, if higher, within 6 feet of a platform. Buried components are not accessible. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If: (i) a visual inspection reveals a tear, leak, hole, or visible sign of a vapor leak; (ii) a leak is found using EPA Method 21; or (iii) a liquid leak is identified, permittee shall, immediately after identifying the leak, mark the location of the leak with a highly visible, waterproof tag or label noting the date the leak was identified and the classification of the leak; provided, however, that tags or labels will only be required for leaks located in accessible areas and where such tags or labels can be safely applied using readily available equipment such as platforms and ladders. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All leaks will be minimized to the extent practical within one hour of discovery to stop or reduce emissions to the atmosphere. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Class I leaks, 1,000 to 9,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 14 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. Class II leaks, 10,000 to 49,999 ppm VOC as methane in accordance with EPA Method 21, shall be repaired within 5 calendar days of discovery. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Class III leaks, 50,000 ppm VOC as methane (or greater) in accordance with EPA Method 21 and all liquid leaks, shall be repaired within 24 hours of discovery. If the immediate repairs do not eliminate the leak from the component, but do reduce the leak rate for the component to between 1,000 and 10,000 ppm, the leak shall then be treated as a Class II leak and five additional days shall be allowed to perform further repairs to reduce the leak rate below 1,000 ppm. A liquid leak is a visible mist or the dripping of liquid at the rate of more than three drops per minute. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. All leaks that require repair or replacement of "critical components" may be delayed for up to one year or the next shutdown that occur after 30 days from the date of leak discovery, whichever is sooner. If a "critical component" is found to have a Class III leak, permittee will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days after the leak is confirmed through EPA Method 21 to be a Class III leak and will be initiated during the next shutdown period that occurs more than 30 days from the APCD approval. A critical component is any component that would result in a reduction in the daily rate of oil production of 33% or greater for any particular tank site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If a component is found to have five Class II or III leaks within a one-year period, permittee will determine the cause of the leak and recommend remedial action. The recommendation will be provided to the APCD within 45 days and initiated within 15 days of APCD approval. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Temporary emissions brought about by the repair process (e.g., the necessary opening of valves or hatches for component repair or replacement) are not leaks provided that the total duration of those emissions is less than 24 hours for each repair process. Emissions caused by the automatic opening of pressure relief devices within design specifications are also not leaks. For tears, leaks, holes, or other visible signs of vapor leaks identified in vapor collection piping, components, and vapor spaces of tanks, EPA Method 21 will be utilized within 3 days to determine the magnitude of the leak, and the class of the leak will be based on the levels set forth in this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Inspection and repair records will be maintained for a period of 5 years on paper or electronically. These records will not be included in routine reports to any agency, but will be available to the EPA or the APCD upon request. The records will include: a) Identification of each leaking component by its name, type of component and the tank or unit where it is located. b) The date of leak detection, the method of identification, and the emission level (in ppm, if applicable). c) Date of leak repair. d) Date and emission level of recheck after repair. e) For each site, the total number of components inspected and the total number and percentage of leaking components found. f) Identification and location of critical components found leaking that cannot be repaired for one year or until the next unit turnaround. g) Method used to minimize the leak from a critical component which cannot be repaired for one year or until the next unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. When a Class II or III leak is identified, permittee will notify the APCD of the leak by the close of business within two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. When a critical component leak is identified, permittee will notify the APCD of the leak by the close of business within the next two business days after the leak is identified. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. A summary or summaries of the records of leaks developed for condition 25 above will be provided to the APCD within 30 days after the end of each calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

28. The efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by 40 CFR 60, Appendix A, Method 18 or 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. [District Rule 4623, 6.4.7] Federally Enforceable Through Title V Permit

29. The operator shall ensure that the vapor recovery system is functional and is operating as designed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
31. Formerly permit number S-1109-403-1.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1084-3
EXPIRATION DATE: 02/28/2017

SECTION: NE05 TOWNSHIP: 29S RANGE: 28E

EQUIPMENT DESCRIPTION:
83 BHP FORD MODEL CGS-649 4.9 LITER 6-CYLINDER NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE
POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit
3. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
4. During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit
5. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year, as determined by an operational nonresettable elapsed operating time meter. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
6. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit
8. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
9. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit

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

1. Flare shall only operate when steam generators S-1131-999, S-1131-065, S-1131-066 and S-1131-067 are not operating. [District Rule 2201] Federally Enforceable Through Title V Permit

2. Thermally Enhanced Oil Recovery (TEOR)/ vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7] Federally Enforceable Through Title V Permit

3. 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

4. Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3] Federally Enforceable Through Title V Permit

5. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

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

7. Only PUC-quality gas with sulfur content less than or equal to 1 grain sulfur per 100 scf of gas shall be used to supplemet gas to the flare. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum volume of gas incinerated in this flare shall not exceed the following: 500,000 scf/day vapor recovery gas and 302,160 scf/day PUC quality natural gas (includes 2,160 scf/day natural gas pilot fuel). [District Rule 2201] Federally Enforceable Through Title V Permit

9. The vapor recovery gas sulfur compound concentration shall not exceed 600 ppmv (35.4 grains S/100scf). [District Rule 2201] Federally Enforceable Through Title V Permit

10. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.026, NOx (as NO2) - 0.068, VOC - 0.063, and CO - 0.370. [District Rule 2201] Federally Enforceable Through Title V Permit

11. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
12. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

13. Operator shall monitor vent gas composition using one of the five following methods: 1) Sampling vent gas pursuant to Rule 4311 Section 6.6.1, 2) Integrated sampling pursuant to Rule 4311 Section 6.6.2, 3) Operate continuous analyzers that meet the requirements of Rule 4311 Section 6.6.3, 4) Operate continuous analyzers employing gas chromatography pursuant to Rule 4311 Section 6.6.4, or 5) Monitor sulfur content using a colorimetric tube system, and monitor vent gas hydrocarbons pursuant to Rule 4311 Section 6.6.5. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

14. Operator shall monitor the volumetric flows of purge and pilot gases. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

15. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Rule 4311 Section 5.11. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

16. Operator shall report periods of monitor inoperation greater than 24 continuous hours by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

17. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311 Section 6.3.4. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

18. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

19. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

20. Permit holder shall document compliance with vapor recovery gas sulfur concentration limit on a monthly basis by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The operator shall notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

22. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that summarizes all reportable flaring events during the previous 12-month period. The report shall include the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit
23. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that includes the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrosulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrosulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

24. Vent gas composition shall be monitored using one of the methods outlined in Rule 4311, Section 6.6.1 through 6.6.5. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

25. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

26. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes at the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

27. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate daily records of volume, type, & location of gas flared and operational status of steam generators S-1131-999, S-1131-065, S-1131-066 and S-1131-067, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 1070; 2520, 9.4.2; and 4311, 6.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-1086-3 EXPIRATION DATE: 02/28/2017
SECTION: SW34 TOWNSHIP: 28S RANGE: 28E
EQUIPMENT DESCRIPTION:
83.3 MMBTU/HR AIR-ASSISTED STANDBY FLARE WITH AUTOMATIC ELECTRONIC IGNITOR, AND NATURAL GAS OR PROPANE PILOT ASSEMBLY, OPERATED AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE KERN RIVER OIL FIELD

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District's Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080] Federally Enforceable Through Title V Permit

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

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

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

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

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

8. This flare shall not operate within 1,000 feet of any K-12 school. [District Rule 4102]

9. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070]

10. Flare shall only operate when steam generators S-1131-064, S-1131-998 and S-1131-1003 are not operating. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Thermally Enhanced Oil Recovery (TEOR) vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7] Federally Enforceable Through Title V Permit

12. 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
13. Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3] Federally Enforceable Through Title V Permit

14. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

15. Only PUC quality natural gas or propane shall be used as pilot fuel. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

16. Maximum volume of gas incinerated in this flare shall not exceed the following: 210,000 scf/day TEOR/ vapor control gas and 202,160 scf/day PUC quality natural gas (includes 2,160 scf/day pilot fuel). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Sulfur compound concentration (as H2S) of TEOR/ vapor control gas shall not exceed 360 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.0202, NOx (as NO2) - 0.068, VOC - 0.006, and CO - 0.370. [District Rule 2201] Federally Enforceable Through Title V Permit

19. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

20. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

21. Operator shall monitor vent gas composition using one of the five following methods: 1) Sampling vent gas pursuant to Rule 4311 Section 6.6.1, 2) Integrated sampling pursuant to Rule 4311 Section 6.6.2, 3) Operate continuous analyzers that meet the requirements of Rule 4311 Section 6.6.3, 4) Operate continuous analyzers employing gas chromatography pursuant to Rule 4311 Section 6.6.4, or 5) Monitor sulfur content using a colorimetric tube system, and monitor vent gas hydrocarbons pursuant to Rule 4311 Section 6.6.5. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

22. Operator shall monitor the volumetric flows of purge and pilot gases. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

23. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Rule 4311 Section 5.11. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

24. Operator shall report periods of monitor inoperation greater than 24 continuous hours by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

25. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311 Section 6.3.4. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
26. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

27. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

28. At least once per month, the permittee shall document compliance with TEOR/ vapor control gas sulfur concentration limit by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Permittee shall maintain accurate daily records of type and volume of gas flared and H2S concentration. [District Rules 1070; and 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. The operator shall notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

31. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that summarizes all reportable flaring events during the previous 12-month period. The report shall include the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

32. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that includes the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

33. Vent gas composition shall be monitored using one of the methods outlined in Rule 4311, Section 6.6.1 through 6.6.5. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

34. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
35. During periods of inoperation of continuous analyzers or auto samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

36. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

37. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

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

1. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District's Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080] Federally Enforceable Through Title V Permit

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

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

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

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

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

8. Approved locations of operation are Sections 25, 28, 30, 31, 32, and 36 of T28S, R28W and Sec 5, 6, 7, and 8 of T29S, R28E. [District Rule 4102]

9. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070]

10. Flare shall only operate when steam generators S-1131-997 and S-1131-1016 are not operating. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Thermally Enhanced Oil Recovery (TEOR)/ vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7] Federally Enforceable Through Title V Permit

12. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. Flare shall be equipped with a natural gas or propane fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3] Federally Enforceable Through Title V Permit

14. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

15. Only PUC quality natural gas or propane shall be used as pilot fuel. [District Rules 2201, 4102] Federally Enforceable Through Title V Permit

16. Maximum volume of gas incinerated in this flare shall not exceed the following: 200,000 scf/day vapor recovery gas and 37,160 scf/day PUC quality natural gas (includes 2,600 scf/day pilot fuel). [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed any of the following in lb/MMBtu: PM10 - 0.0202, NOx (as NO2) - 0.068, VOC - 0.004, and CO - 0.370. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Sulfur compound concentration (as H2S) of vapor recovery gas shall not exceed 810 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

19. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

20. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

21. Operator shall monitor vent gas composition using one of the five following methods: 1) Sampling vent gas pursuant to Rule 4311 Section 6.6.1, 2) Integrated sampling pursuant to Rule 4311 Section 6.5.2, 3) Operate continuous analyzers that meet the requirements of Rule 4311 Section 6.6.3, 4) Operate continuous analyzers employing gas chromatography pursuant to Rule 4311 Section 6.6.4, or 5) Monitor sulfur content using a colorimetric tube system, and monitor vent gas hydrocarbons pursuant to Rule 4311 Section 6.6.5. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

22. Operator shall monitor the volumetric flows of purge and pilot gases. [District Rule 4311, 5.11, 6.3] Federally Enforceable Through Title V Permit

23. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Rule 4311 Section 5.11. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

24. Operator shall report periods of monitor inoperation greater than 24 continuous hours by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

25. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311 Section 6.3.4. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit
26. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer’s specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device. The written policy must explain and justify the difference between the written procedure and the manufacturer’s procedure. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

27. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

28. At least once per month, the permittee shall document compliance with TEOR/vapor control gas sulfur concentration limit by sample collection and independent laboratory analysis using ASTM method 3246. [District Rule 1081] Federally Enforceable Through Title V Permit

29. The results of sample analysis, conducted for startup, shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Permittee shall maintain accurate daily records of type and volume of gas flared and H2S concentration. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. The operator shall notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

32. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that summarizes all reportable flaring events during the previous 12-month period. The report shall include the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

33. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that includes the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

34. Vent gas composition shall be monitored using one of the methods outlined in Rule 4311, Section 6.6.1 through 6.6.5. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

35. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
36. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 5.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit.

37. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications, in order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit.

38. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit.
San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1131-1031-2

PERMIT UNIT REQUIREMENTS

1. The equipment shall not be operated within 1000 feet of any K-12 school. [District NSR Rule] Federally Enforceable Through Title V Permit

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

3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

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, 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", 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. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

10. 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

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

1. Tank is authorized to receive fluids from facilities S-1131 and S-1127. [District Rule 2201] Federally Enforceable Through Title V Permit

2. The overall efficiency of the tank vapor collection and control system shall be maintained at no less than 99%. [District Rule 2201] Federally Enforceable Through Title V Permit

3. Tank shall be equipped with an operational and calibrated stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit

4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit

5. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 6.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permittee shall maintain records of number and type of components in gas service installed. Permittee shall update such records when new gas handling components are installed. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank seams, welds, joints, piping, valves and fittings shall be inspected for gas leaks. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A visible mist, liquid dripping at the rate of more than 3 drops per minute, and vapor leaks of 50,000 ppm or greater VOC as methane shall be repaired as expeditiously as possible but in no case beyond 24 hours after detection of the leak and shall be re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 10,000 ppm and less than 50,000 ppm VOC as methane shall be repaired within 5 days of detecting the leak and re-monitored using EPA Method 21 upon completion of the repair. Vapor leaks equal to or greater than 1,000 ppm and less than 10,000 ppm VOC as methane shall be repaired within 14 days of leak detection and shall be re-monitored using EPA Method 21 upon completion of the repair. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
9. All piping, fittings, valves, and tank gauging or sampling devices shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. However, if two (2) percent or more of the components of any type subject to the requirements of this permit are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If less than two percent of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (excepting shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane [40 CFR 60.112(b)(a)(3)(i)] Federally Enforceable Through Title V Permit

11. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. 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, 6.2] Federally Enforceable Through Title V Permit


15. 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 Reactivation Organic Compounds in Heavy Crude Oil Using Gas Chromatograph"; as approved by ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

16. True Vapor Pressure (TVP) of any organic liquid, except for crude oil with an API gravity of 20 degrees or less, shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "California Air Resources Board (ARB) Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

17. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
18. Permittee shall submit the records of TVP and API gravity-testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

19. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

20. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116(b)] Federally Enforceable Through Title V Permit

21. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart Kb (except 60.113b(c)). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

24. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

25. Permittee shall notify the District Compliance division at least 48 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Prior to taking the vapor control system off-line, the water removal rate shall be controlled to maximize the fluid level in the tank and minimize the thickness of the oil pad. The liquid level shall be raised to displace at least 90% of the tank liquid capacity using water. The inflow of crude oil and water shall be stopped and the vapor control system shall continue to operate for at least 24 hours prior to opening the tank. [District Rule 2010] Federally Enforceable Through Title V Permit

28. After the inflow of crude oil and water has stopped and the vapor control system has operated for at least 24 hours, the tank shall be isolated or disconnected from the vapor control system, the tank drain shall be opened, the pressure-vacuum relief valve shall be opened or bypassed, and the tank shall be drained. [District Rule 2010] Federally Enforceable Through Title V Permit

29. The tank shall be cleaned using water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2010] Federally Enforceable Through Title V Permit

30. Steam Cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2010] Federally Enforceable Through Title V Permit

31. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2010] Federally Enforceable Through Title V Permit

32. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2010] Federally Enforceable 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. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit.
PERMIT UNIT REQUIREMENTS

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

2. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs prior to blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

3. Except for fluids from the well casing, fluids produced from these steam-enhanced wells shall be introduced only to tanks vented to a District approved vapor collection and control system, or to permit exempt storage equipment as defined by Rule 2020, Section 6.6. [District Rule 2201] Federally Enforceable Through Title V Permit

4. The well casing vents shall either be (1) connected to the well casing vapor collection system that serves this permit unit; (2) connected to the Station 36 production pipeline; (3) connected to the Station 36 tank vapor control system listed on S-1131-598; or (4) connected to flares S-1131-1086, S-1131-1087 or S-1131-1108. [District Rule 2201] Federally Enforceable Through Title V Permit

5. High point separators shall vent only to flares S-1131-1086, 1108, and 1108 and/or to tank vapor control system S-1131-598. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Permits shall supply the District with a map showing the locations of the high point separators before initial start-up. The map shall be updated annually, kept at the facility, and made readily available to the District upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The crude oil production from wells associated with this permit unit shall not lie within 1,000 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

8. The VOC content of the casing gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall conduct quarterly sampling of the well casing gas. If the gas sampled is 10% or less VOC by weight for eight consecutive quarterly 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

10. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. The inspection requirements of Section 5.4.1 through Section 5.4.7 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight (10%) or less, as determined by the test methods in Section 6.3.4 of Rule 4401. [District Rule 4401, 4.7] Federally Enforceable Through Title V Permit

12. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

13. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1 and 5.1] Federally Enforceable Through Title V Permit

14. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

15. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leak greater than 10,300 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit

16. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

17. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

18. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

19. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

20. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
21. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

22. In addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

23. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

24. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit

25. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

26. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5] Federally Enforceable Through Title V Permit

27. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

28. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

29. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

30. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

31. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5] Federally Enforceable 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. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit

33. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

35. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

36. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

37. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

39. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

40. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system as defined in Section 3.30 of Rule 4401 is not subject to compliance source testing requirements. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

41. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit

42. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: Conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit
43. 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] Federally Enforceable Through Title V Permit

44. 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] Federally Enforceable Through Title V Permit

45. 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] Federally Enforceable Through Title V Permit

46. 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] Federally Enforceable Through Title V Permit

47. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit

48. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1 and 6.5] Federally Enforceable Through Title V Permit

49. Operator shall keep a list of all gauge tanks, as defined in Section 3.0 of Rule 4401. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401, 6.1 and 6.6] Federally Enforceable Through Title V Permit

50. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit

51. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District 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. No modification to this unit shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

2. This unit may be designated as a dormant emissions unit or an active emissions unit. Permittee shall notify the District’s Compliance Division in writing (US Mail, Fax or Email) within 7 days after re-designating this unit as a dormant or active emissions unit. [District Rule 2080] Federally Enforceable Through Title V Permit

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

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

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

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

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

8. Flare is authorized to operate only at Sections 25, 30, 31, 32, and 36 in T28S/R28E and Sections 5, 6, 7, and 8 in T29S/R28E. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070]

10. Thermally Enhanced Oil Recovery (TEOR)/vapor control gas, natural gas, pilot gas, and purge gas lines to flare shall be equipped with volumetric flow rate indicator. [District Rules 2201; and 4311, 5.10, 6.7] Federally Enforceable Through Title V Permit

11. 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 or darker than Ringelmann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The Thermally Enhanced Oil Recovery (TEOR)/vapor control gas line to the flare shall be equipped with a non-resettable totalizing volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
13. 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

14. Flare shall be equipped with a natural gas-fired pilot and an automatic re-ignition system. [District Rules 2201; and 4311, 5.3] Federally Enforceable Through Title V Permit

15. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. Effective on and after July 1, 2012, all pilot monitor downtime shall be reported annually pursuant to Rule 4311, section 6.2.3.6. [District Rules 4311, 5.4] Federally Enforceable Through Title V Permit

16. Only PUC quality natural gas shall be used as pilot fuel. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

17. Maximum amount of flared gas and pilot gas combusted shall not exceed 199.177 MMBtu/day nor 53,943.8 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

18. 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

19. Sulfur content of flared gas and pilot gas shall not exceed 1.6 gr/100scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

20. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

21. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

22. Operator shall monitor vent gas composition using one of the five following methods: 1) Sampling vent gas pursuant to Rule 4311 Section 6.6.1, 2) Integrated sampling pursuant to Rule 4311 Section 6.6.2, 3) Operate continuous analyzers that meet the requirements of Rule 4311 Section 6.6.3, 4) Operate continuous analyzers employing gas chromatography pursuant to Rule 4311 Section 6.6.4, or 5) Monitor sulfur content using a colorimetric tube system, and monitor vent gas hydrocarbons pursuant to Rule 4311 Section 6.6.5. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

23. Operator shall monitor the volumetric flows of purge and pilot gases. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

24. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Rule 4311 Section 5.11. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

25. Operator shall report periods of monitor inoperation greater than 24 continuous hours by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

26. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311 Section 6.3.4. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
27. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

28. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311, 5.11, 6.9] Federally Enforceable Through Title V Permit

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

30. Flared gas and pilot 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 flared gas and pilot gas, then the testing frequency shall be quarterly. If a quarterly testing fails to show compliance, weekly testing shall resume. [District Rule 1070]

31. Sulfur content of flared gas and pilot gas shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070]

32. Higher heating value of flared gas and pilot gas shall be determined using ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rule 1070]

33. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Permittee shall maintain accurate records of types of pilot gas and flared gas, sulfur contents of flared gas and pilot gas, higher heating values of flared and pilot gas, and daily and annual quantities of flared gas and pilot gas combusted in the flare. [District Rule 2201] Federally Enforceable Through Title V Permit

35. The operator shall notify the District of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

36. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that summarizes all reportable flaring events during the previous 12-month period. The report shall include the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit
37. Effective on and after July 1, 2012, and annually thereafter, an operator shall submit a report to the District within 30 days following the end of each 12-month period that includes: the following: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; and 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit

38. Vent gas composition shall be monitored using one of the methods outlined in Rule 4311, Section 6.6.1 through 6.6.5. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit

39. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

40. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

41. Operator shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311, 6.9] Federally Enforceable Through Title V Permit

42. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-1117-2
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
480 HP CATERPILLAR MODEL C9 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit

2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit

4. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit

5. During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit

6. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 3.15; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

7. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit

8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

9. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201; 4801, 3.1; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.
11. Emissions from this IC engine shall not exceed any of the following limits: 2.61 g-NOx/bhp-hr, 2.31 g-CO/bhp-hr, or 0.15 g-VOC/bhp-hr. [District Rule 2261; 13 CCR 2423; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

12. Emissions from this IC engine shall not exceed 0.11 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201; 4102; 13 CCR 2423; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702, 6.2; and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2; and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

PERMIT UNIT: S-1131-1119-2
EXPIRATION DATE: 02/28/2017

EQUIPMENT DESCRIPTION:
EPA-TIER 3 CERTIFIED DIESEL-FIRED TRANSPORTABLE IC ENGINE UPTO 532 HP POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. Permittee shall provide written notification to the District within 48 hours of operating an engine under this permit (if an engine is located onsite longer than 24 hours). Such notification shall include the date the unit was brought onsite, the manufacturer, model number, maximum rating, and emissions information that documents that the unit meets the emission limits and requirements specified in the permit. [District Rule 1070]

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

3. The exhaust stack of any IC engine utilized for this permit unit shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

4. Any IC engine utilized for this permit unit shall not be located within 1000 feet of any receptor or any K-12 school. [District Rule 4102; and CH&SC 42301.6]

5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used in any IC engine utilized for this permit unit. [District Rules 2201; 4801, 3.1; 17 CCR 93116; and 40 CFR 60 Subpart III] Federally Enforceable Through Title V Permit

6. Emissions from any IC engine utilized for this permit unit shall not exceed any of the following limits: 2.80 g-NOx/bhp-hr, 2.60 g-CO/bhp-hr, or 0.20 g-VOC/bhp-hr. [District Rule 2201; 17 CCR 93115; and 40 CFR Part 60 Subpart III] Federally Enforceable Through Title V Permit

7. Emissions from any IC engine utilized for this permit shall not exceed 0.15 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201; 4102; 13 CCR 2423; 17 CCR 93116; and 40 CFR 60 Subpart III] Federally Enforceable Through Title V Permit

8. Total operation of this permit unit shall not exceed 300 hours per year on a rolling month average. [District Rules 2201; and 4102] Federally Enforceable Through Title V Permit

9. Any IC engine utilized for this permit unit shall not be operated at any single location (as defined in Rule 4701) for more than 12 consecutive months. [District Rule 4701, 3.24; and 40 CFR Part 89] Federally Enforceable Through Title V Permit

10. Any IC engine utilized for this permit unit shall be operated in accordance with the requirements of the Code of Federal Regulations [District Rule 2201; and 40 CFR Part 89] Federally Enforceable Through Title V Permit

11. Any IC engine utilized for this permit unit 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; and 40 CFR 60 Subpart III] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
12. During or before periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7] Federally Enforceable Through Title V Permit.

13. Any IC engine utilized for this permit unit shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7; 17 CCR 93115; and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit.

14. The permittee shall maintain a permit unit operating log that shall include the following: a record of the cumulative annual hours of operation of the engine, the quantity of diesel fuel used, and a record of maintenance or modifications performed on any IC engine utilized for this permit unit. These records shall be updated on a monthly basis. [District Rule 4702, 6.2; and 17 CCR 93115] Federally Enforceable Through Title V Permit.

15. The permittee shall maintain records of each location where the permit unit is operated, including dates and duration of residency at each location, and shall update those records each time any IC engine utilized for this permit unit is moved. [District Rule 2201; 40 CFR 89; and 17 CCR 92116] Federally Enforceable Through Title V Permit.

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2; and 17 CCR 93115] Federally Enforceable Through Title V Permit.

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