



JAN 12 2012

Don Macpherson
Macpherson Oil Company
P.O. Box 5368
Bakersfield, CA 93388

**Re: Notice of Final Action - Title V Permit Renewal
District Facility # S-1703
Project # S-1054655**

Dear Mr. Macpherson:

The District has issued the Final Renewed Title V Permit for Macpherson Oil Company. The preliminary decision for this project was made on November 2, 2011. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,



David Warner
Director of Permit Services

Attachments

cc: Stanley Tom, Permit Services Engineer

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061
www.valleyair.org www.healthyairliving.com

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



JAN 12 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-1703
Project # S-1054655**

Dear Mr. Rios:

The District has issued the Final Renewed Title V Permit for Macpherson Oil Company. The preliminary decision for this project was made on November 2, 2011. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,



David Warner
Director of Permit Services

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JAN 12 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-1703
Project # S-1054655**

Dear Mr. Tollstrup:

The District has issued the Final Renewed Title V Permit for Macpherson Oil Company. The preliminary decision for this project was made on November 2, 2011. A summary of the comments and the District's response to each comment is included as an attachment to the engineering evaluation.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,



David Warner
Director of Permit Services

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cc: Stanley Tom, Permit Services Engineer

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Bakersfield Californian

**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 Macpherson Oil Company for its oil and natural gas production facility in the Heavy Oil Central Stationary Source, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1054655, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Final Title V Permit Renewal Evaluation Macpherson Oil Company S-1703

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TITLE V PERMIT RENEWAL EVALUATION
Oil and Natural Gas Production

Engineer: Stanley Tom
Date: October 31, 2011

Facility Number: S-1703
Facility Name: Macpherson Oil Company
Mailing Address: P.O. Box 5368
Bakersfield, CA 93388

Contact Name: Don Macpherson, Jr.
Phone: (661) 393-3204

Responsible Official: Don Macpherson, Jr.
Title: President

Project # : S-1054655
Deemed Complete: September 23, 2005

I. PROPOSAL

Macpherson Oil Company (Macpherson) was issued a Title V permit on May 31, 2001. 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.

Macpherson has not proposed to use any Title V templates.

The following ATCs have been implemented by Macpherson and will be converted to a PTO with this Title V renewal. The renewed PTO will be based on these ATCs.

ATC's Converted with the Title V Renewal			
ATC's	ATC Project	Modification Type	Description of Modification
-157-11, -158-10, -159-12, -160-12, -181-9	S-1093136	AA	REPLACE EXISTING BURNER WITH GIDEON MGW-63V2 LOW NOX GAS BURNER OR EQUIVALENT AND LOWER NOX EMISSIONS TO 7 PPM @3% O2 FOR RULE 4320 COMPLIANCE
-161-12, -162-7, -180-8, -181-7	S-1071499	MM	LOWER NOX EMISSIONS LIMIT FROM 15 PPMV TO 13 PPMV @ 3% O2
-161-14, '162-10, -180-10	S-1090473	AA	RETROFIT WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER
-161-15, '162-11, -180-11	S-1090473	AA	LOWER NOX LIMIT TO 7 PPMV FOR RULE 4320 COMPLIANCE
-181-5	S-1062950	MM	REPLACE LOW NOX BURNER WITH QLN LOW NOX BURNER WITH FGR FOR RULE 4305 AND 4306 COMPLIANCE AND TRANSFER OF LOCATION TO SE/4 SEC 18, T28S, R29E FROM SW/4 SEC 9, T27S, R28E

II. FACILITY LOCATION

Macpherson is located at Heavy Oil Central Stationary Source in Kern County, CA.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is not requesting to use any model general permit Templates.

V. SCOPE OF EPA AND PUBLIC REVIEW

Certain segments of the proposed Renewed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions
(amended December 19, 2002 ⇒ amended September 21, 2006 ⇒ amended December 20, 2007 ⇒ amended August 18, 2011)
- District Rule 2201, New and Modified Stationary Source Review Rule
(amended April 20, 2005 ⇒ amended September 21, 2006 ⇒ amended April 11, 2011)
- District Rule 2520, Federally Mandated Operating Permits
(adopted June 15, 1995 ⇒ amended June 21, 2001)
- District Rule 4101, Visible Emissions
(amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4305, Boilers, Steam Generators, Process Heaters – Phase 2
(amended December 19, 1996 ⇒ amended August 21, 2003)
- District Rule 4351, Boilers, Steam Generators, Process Heaters
(amended October 19, 1995 ⇒ amended August 21, 2003)
- District Rule 4401, Steam-Enhanced Crude Oil Production Wells
(amended January 15, 1998 ⇒ amended December 14, 2006 ⇒ amended June 16, 2011)

- District Rule 4601, Architectural Coatings
(amended December 17, 1992 ⇒ amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4621, Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, and Bulk Plants
(amended June 18, 1998 ⇒ amended December 20, 2007)
- District Rule 4622, Gasoline Transfer Into Motor Vehicle Fuel Tanks
(amended September 19, 2002 ⇒ amended December 20, 2007)
- District Rule 4623, Storage of Organic Liquids
(amended December 20, 2001 ⇒ amended May 19, 2005)
- 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

B. Rules Removed

- District Rule 8020, 8030, and 8060, Fugitive Dust (PM₁₀) Emissions
(amended April 25, 1996)

These rules were removed on November 15, 2001 and were replaced with District Rules 8021, 8031, and 8061.

C. Rules Added

- District Rule 4306, Boilers, Steam Generators, Process Heaters – Phase 3
(adopted September 18, 2003 ⇒ amended October 16, 2008)
- District Rule 4311, Flares
(adopted June 20, 2002 ⇒ amended June 15, 2006 ⇒ amended June 18, 2009)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (adopted October 16, 2008)
- District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities (adopted November 15, 2001 ⇒ amended August 19, 2004)

- District Rule 8031, Bulk Materials (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8051, Open Areas (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads (adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (adopted November 15, 2001 ⇒ amended September 16, 2004)

D. Rules Not Updated

- District Rule 1070, Inspections (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (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 4102, Nuisance (amended December 17, 1992)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4202, Particulate Matter - Emission Rate (amended December 17, 1992)

- District Rule 4301, Fuel Burning Equipment (amended December 17, 1992)
- District Rule 4407, In-Situ Combustion Well Vents (adopted May 19, 1994)
- 40 CFR Part 60, Subpart A, General Provisions
- 40 CFR Part 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
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM)¹
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

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

A. Rules Not Updated

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

Condition 38 of permit unit '0-1, condition 5 of permit unit '94-2, condition 1 of permit unit '183-0, are based on District Rule 4102 and will therefore not be discussed any further.

¹ The requirements of 40 CFR Part 64 have not been updated since the time of the last Title V permitting action. However, the requirements of this part were not previously addressed for any of these permit units. Therefore, even though the requirements have not been updated since the time of the initial Title V permitting action, this part will be discussed in Section VII of this evaluation.

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 are specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

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

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

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

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

C. District Rule 2520 - Federally Mandated Operating Permits

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

Old Rule Section	Corrected Rule Section
9.3	9.2
9.4	9.3
9.5	9.4
9.6	9.5
9.7	9.6
9.8	9.7
9.9	9.8
9.10	9.9
9.11	9.10
9.12	9.11
9.13	9.12
9.14	9.13
9.15	9.14
9.16	9.15
9.17	9.16
9.18	9.17
9.19	9.18

The following permit requirements were added and/or revised to ensure compliance with this rule:

a. S-1703-0-2 – Facility-Wide Requirements

- Conditions 5, 8-21, 26, 36, 38 from the current permit requirements have been revised to include the updated Section 9 rule references.

b. S-1703-27-4

- Conditions 8-10 and 19-21 from the current permit requirements have been revised to include the updated Section 9 rule references.

c. S-1703-67-2

- Condition 3 from the current permit requirements has been revised to include the updated Section 9 rule reference.

d. S-1703-134-4

- Condition 15 from the current permit requirements has been revised to include the updated Section 9 rule reference.

e. S-1703-141-2

- Conditions 2-4 from the current permit requirements have been revised to include the updated Section 9 rule references.

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

D. District Rule 4101 - Visible Emissions

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

Section 5.0 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. Condition 22 of permit unit -0-2 ensures compliance.

E. District Rule 4305 – Boilers, Steam Generators, Process Heaters – Phase 2

The purpose of this rule is to limit emissions oxides of nitrogen (NO_x) and carbon monoxide (CO) from the operation of boilers, steam generators, and process heaters.

Section 5.1.1 requires that except for units subject to Sections 5.2, NO_x 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.

Rule 4305 Emissions Limits		
	Operated on gaseous fuel	Operated on liquid fuel
	NO_x Limit	NO_x Limit
For all units, except box or cabin type units and vertical cylindrical process heaters.	30 ppmv or 0.036 lb/MMBtu	40 ppmv or 0.052 lb/MMBtu
For box or cabin type units, and vertical cylindrical process heaters.	147 ppmv or 0.18 lb/MMBtu	155 ppmv or 0.2 lb/MMBtu

a. S-1703-157-4

- Condition 2 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.1.2 applies to units operated on combinations of gaseous fuel and liquid fuel. No units at this facility are permitted to operate on combinations of gaseous and liquid fuels. Therefore, this section is not applicable.

Section 5.2 states that each unit that is operated with an annual heat input less than 30 billion Btu per calendar, as made enforceable by permit to operate, shall comply with one of the following:

- 5.2.1 tune the unit at least once each calendar year in which it operates by a qualified technician in accordance with the procedure described in Rule 4304; or
- 5.2.2 operate the unit in a manner that maintains exhaust oxygen concentrations at less than or equal to 3.00 percent by volume on a dry basis; or
- 5.2.3 operate the unit in compliance with the applicable emission requirements of Section 5.1 and 5.3.

The units at this facility are not limited to an annual heat input less than 30 billion Btu per year. Therefore, this section is not applicable.

Section 5.3 states that for units subject to section 5.1, carbon monoxide emissions shall not exceed 400 ppmv.

a. S-1703-157-4

- Condition 2 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.1 applies to any unit which simultaneously fires gaseous and liquid fuels, and is subject to the requirements of Section 5.1. No units fire simultaneously on gaseous and liquid fuels. Therefore, this section is not applicable.

Section 5.4.2 requires the operator of any unit subject to the emissions limits specified in Section 5.1 to install and maintain Continuous Emissions Monitoring (CEMS) for NO_x, CO and O₂, or implements an APCO-approved Alternate Monitoring System.

In order to satisfy the requirements of District Rule 4306, the facility is subject to pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_x, CO, and O₂ exhaust concentrations be conducted at least once per month (in which a source test is not performed) using a portable analyzer.

a. S-1703-157-4

- Conditions 14-17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Conditions 22-25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Conditions 23-26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.3 states that for units subject to the requirements of Section 5.2.1 or 5.2.2, monitor operational characteristics recommended by the manufacturer and approved by the APCO. The units operated at this facility are not subject to Sections 5.2.1 or 5.2.2. Therefore, this section is not applicable.

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

a. S-1703-157-4

- Condition 1 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 2 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

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).

a. S-1703-157-4

- Condition 10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0.

a. S-1703-157-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.3 pertains to units equipped with Continuous Emissions Monitoring Systems (CEMS). No units at this facility 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 NO_x 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.

a. S-1703-157-4

- Condition 16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 23 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

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.

a. S-1703-157-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 9 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 15 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.6 establishes the requirements for units subject to startup and shutdown requirements. The units at this facility are not subject to startup and shutdown provisions. Therefore, this section is not applicable.

Section 6.1.1 applies to units operated under the exemption of Section 4.2. No units operate under the exemption in Section 4.2. Therefore the requirements in this section are not applicable.

Section 6.1.2 applies to units operated under the exemption of Section 4.3. No units operate under the exemption in Section 4.3. Therefore the requirements in this section are not applicable.

Section 6.1.3 requires that the operator of any unit subject to Section 5.2.1 or 5.2.2 shall record the amount of fuel use on a monthly basis for each unit. The units operated at this facility are not subject to the requirements of Sections 5.2.1 or 5.2.2. Therefore, the requirements in this section are not applicable.

Section 6.1.4 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 operated at this facility are not subject to the requirements of Sections 5.2.1 or 6.3.1. Therefore, the requirements in this section are not applicable.

Section 6.1.4 requires that the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown. The units at this facility are not subject to startup and shutdown provisions. Therefore, this section is not applicable.

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

Pollutant	Units	Test Method Required
NO _x	ppmv	EPA Method 7E or ARB Method 100
NO _x	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O ₂	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

a. S-1703-157-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Conditions 14-16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.1 requires that each unit subject to the requirements of Sections 5.1 or 5.2.3 shall be source tested to determine compliance with the applicable emission limits at least once every 12 months. Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test up to 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Sections 5.1 or 5.2.3, the source testing frequency shall revert to at least once every 12 months.

a. S-1703-157-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.2 states that in lieu of compliance with Section 6.3.1, compliance with the applicable 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.

a. S-1703-157-4

- Conditions 26-28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Conditions 14-18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

F. District Rule 4306 – Boilers, Steam Generators, Process Heaters – Phase 3

The purpose of this rule is to limit emissions oxides of nitrogen (NO_x) and carbon monoxide (CO) from the operation of boilers, steam generators, and process heaters.

Section 5.1, NO_x and CO Emissions Limits

Section 5.1.1 requires that except for units subject to Sections 5.2, NO_x 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.

The steam generators at this facility fall into the following category.

Rule 4306 Emissions Limits				
Category	Operated on gaseous fuel		Operated on liquid fuel	
	NO_x Limit	CO Limit	NO_x Limit	CO Limit
C. Oilfield Steam Generators	15 ppmv or 0.018 lb/MMBtu	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv

a. S-1703-157-4

- Condition 2 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.2, Low Use

The units at this facility annual heat input will exceed the 9 billion Btu heat input per calendar year criteria limit addressed by this section. Since the units are not subject to Section 5.2, the requirements of this section will not be discussed.

Section 5.3, Startup and Shutdown Provisions

Section 5.3 states 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 in Sections 5.3.1 through 5.3.4.

The units at this facility do not have startup and shutdown provisions addressed by this section. Since the units are not subject to Section 5.3, the requirements of this section will not be discussed.

Section 5.4, Monitoring Provisions

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 NO_x, CO and O₂, or install and maintain APCO-approved alternate monitoring.

In order to satisfy the requirements of District Rule 4306, the facility is subject to pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_x, CO, and O₂ exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer.

- a. S-1703-157-4
 - Conditions 14-17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- b. S-1703-158-4
 - Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- c. S-1703-159-6
 - Conditions 22-25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- d. S-1703-160-6
 - Condition 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- e. S-1703-161-6
 - Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- f. S-1703-162-4
 - Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- g. S-1703-180-4
 - Conditions 23-26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- h. S-1703-181-4
 - Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5, Compliance Determination

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).

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.

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 NO_x 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.

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.

a. S-1703-157-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 9 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 15 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.4 shall be maintained for five calendar years and shall be made available to the APCO upon request. 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. S-1703-157-4

- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 31 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 29 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1.1 applies to units seeking exemption under Section 4.2. None of the units at this facility are subject to the exemption.

Section 6.1.2 requires that the operator of a unit subject to Category H unit listed in Section 5.1.1 Table 1 or to Section 5.2 shall record the amount of fuel use at least on a monthly basis. None of the units at this facility are subject to this section.

Section 6.1.3 requires that the operator of a unit subject to Section 5.2.1 or 3.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. None of the units at this facility are subject to this section.

Section 6.1.4 requires the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown. None of the units at this facility are subject to this section.

Section 6.2, Test Methods

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

Pollutant	Units	Test Method Required
NO _x	ppmv	EPA Method 7E or ARB Method 100
NO _x	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O ₂	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

- a. S-1703-157-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- b. S-1703-158-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- c. S-1703-159-6
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- d. S-1703-160-6
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- e. S-1703-161-6
 - Conditions 14-16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3, Compliance Testing

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.

a. S-1703-157-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.2 contains the requirements for representative testing in lieu of meeting the requirements of Section 6.3.2.

a. S-1703-157-4

- Conditions 26-28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Conditions 14-18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

G. District Rule 4311 – Flares

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares. This rule applies to all facilities operating flares.

Current District Rule 4311 (amended 6/18/09) has not been SIP approved. Attachment E contains the streamlining of the SIP approved District Rule 4311 (6/20/02) to the current District Rule 4311 to show the current rule is as stringent if not more than the SIP approved version.

a. S-1703-27-4

Section 5.1 states flare operated during emergency situations only are not subject to Sections 5.6 or 5.7. This is not an emergency flare.

Section 5.2 requires that a flame be present at all times when combustible gases are vented through the flare.

- Condition 19 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.3 requires that the outlet shall be equipped with an automatic ignition system, or, shall be operated 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.

- Condition 20 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

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 equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.

- Condition 21 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5 requires that flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.

- Condition 22 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.6 requires (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.

- Condition 23 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.7 sets forth additional requirements for ground-level enclosed flares. As discussed above, this is an open flare. Therefore, the requirements of this are not applicable.

Section 5.8 requires that effective on and after July 1, 2011, 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. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. This unit is not located at a petroleum refinery but is greater than 5.0 MMBtu/hr; therefore it is subject to the requirements of Section 6.5.

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.9 discusses the petroleum refinery SO₂ performance targets. Since this facility is not a petroleum refinery, this section is not applicable.

Section 5.10 states effective July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.

- Condition 25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.11 states effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10. Since this facility is not a petroleum refinery and the flare does not have a flaring capacity equal to or greater than 50 MMBtu/hr, this section is not applicable.

Section 6.1 states that the following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

- 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, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.
- 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.

- Conditions 26 and 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.2.1 states for unplanned flaring events that effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO 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.

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.2.2 states for reportable flaring events that effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO 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.
- Condition 29 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.2.3 states that 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.
- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.1 states that VOC, 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 Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". There are no VOC testing requirements for open flares. Therefore, the requirements of this section are not applicable.

Section 6.3.2 requires that NO_x emissions in pounds per million BTU shall be determined by using EPA Method 19.

Section 6.3.3 requires that NO_x and O₂ concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.

- Condition 31 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.4 states that effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:

- Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,
 - Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.
 - If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.
 - If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.
- Conditions 32 and 33 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.5 states that for purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:

- EPA Methods 1 and 2;
 - A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.
 - Tracer gas dilution or velocity.
 - Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.
- Condition 34 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.4.1 states that upon request, the operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5).

- Condition 35 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.4.2 states that the operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing. The unit is an open flare, and therefore not subject to the emission requirements of Section 5.7.

Sections 6.5.1 states that by July 1, 2010, 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 shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:

- A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.
- Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.
- A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.
- An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.
- An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.
- An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.
- Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.

- Condition 36 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.5.2 states that every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.

- Condition 37 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.5.3 states that an updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if:

- The equipment change would require an Authority To Construct (ATC) and would impact the emissions for the flare, and
 - The ATC is deemed complete after June 18, 2009, and
 - The modification is not solely the removal or decommissioning of equipment that is listed in the FMP and has no associated increase in flare emissions.
- Condition 38 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.5.4 states that when submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.

- Condition 39 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.6 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate. The unit is not a petroleum refinery flare and does not have a flaring capacity equal to or greater than 50 MMBtu per hour. Therefore, the requirements of this section are not applicable.

Section 6.7 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall 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. The unit is not a petroleum refinery flare and does not have a flaring capacity equal to or greater than 50 MMBtu per hour. Therefore, the requirements of this section are not applicable.

Section 6.8 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall 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. The unit does not have a flaring capacity equal to or greater than 50 MMBtu per hour. Therefore, the requirements of this section are not applicable.

Section 6.9 applies to a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour. The unit is not a petroleum refinery flare and does not have a flaring capacity equal to or greater than 50 MMBtu per hour. Therefore, the requirements of this section are not applicable.

Section 6.10 applies to petroleum refinery flares. The unit is not a petroleum refinery flare. Therefore, the requirements of this section are not applicable.

Section 7.0 establishes the compliance schedule requirements for existing and new flares. These are existing flares and are operating in compliance with the requirements of this rule.

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

This rule limits NO_x, 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 NO_x emitted over the previous year.

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:

- 5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- 5.1.2 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
- 5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

The facility complies with and will continue to comply with the emission limits specified in Sections 5.2 and 5.4. Therefore, Sections 5.3 and 5.5 will not be discussed.

Section 5.2.1 states that on and after the indicated Compliance Deadline, units shall not be operated in a manner which exceeds the applicable NOx limit specified in Table 1 of this rule. Additionally, on and after October 1, 2008, units shall not be operated in a manner to which exceeds a carbon monoxide (CO) emissions limit of 400 ppmv.

The steam generators at this facility fall under Category B shown in the following table.

	NOx Limit	Authority to Construct	Compliance Deadline
B. Units with a total rated heat input > 20.0 MMBtu/hr, except for Categories C through G	a) Standard Schedule 7 ppmv or 0.008 lb/MMBtu ; or	July 1, 2009	July 1, 2010
	b) Enhanced Schedule 5 ppmv or 0.0062 lb/MMBtu	January 1, 2013	January 1, 2014

a. S-1703-157-4

- Condition 2 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.2.4 applies to units operated on combinations of gaseous fuel and liquid fuel. No units at this facility are permitted to operate on combinations of gaseous and liquid fuels. Therefore, this section is not applicable.

Section 5.4 lists the control requirements for particulate matter. Section 5.4.1 states that to limit particulate matter emissions, an operator shall comply with one of the following requirements:

- 5.4.1.1 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall fire units exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;

- 5.4.1.2 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.4.1.3 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall install and properly operate an emission control system that reduces 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.
- 5.4.1.4 Notwithstanding the compliance deadlines indicated in Sections 5.4.1.1 through 5.4.1.3, refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

a. S-1703-157-4

- Condition 3 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 4 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.2 states that liquid fuel shall be used only during PUC quality natural gas curtailment periods, provided the requirements of Sections 4.2 and 6.1.5 are met and the fuel contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.2. No units at this facility are permitted to operate on liquid fuels. Therefore, the requirements of this section are not applicable.

Section 5.5 applies only to low use boilers installed prior to January 1, 2009 and are limited to less than or equal to 1.8 billion Btu per calendar year. No units at this facility are limited to less than 1.8 billion Btu per calendar year heat input. Therefore, the requirements of this section are not applicable.

Section 5.6 states that on and after the full compliance deadline specified in Section 5.0, 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 units at this facility do not have start-up or shutdown provisions. Therefore, the requirements of this section are not applicable.

Section 5.7.1 requires that permit units subject to the emission limits specified in Section 5.2 shall either install and maintain an operational APCO approved Continuous Emission Monitoring System (CEMS) for NO_x, CO and O₂, or implement an APCO-approved alternate monitoring.

In order to satisfy the monitoring requirements of District Rules 4305, 4306 and 4320, the units at this facility are subject to pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires monitoring of the NO_x, CO, and O₂ exhaust concentrations be conducted at least once per month (in which a source test is not performed) using a portable analyzer.

- a. S-1703-157-4
 - Conditions 14-17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- b. S-1703-158-4
 - Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- c. S-1703-159-6
 - Conditions 22-25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- d. S-1703-160-6
 - Condition 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- e. S-1703-161-6
 - Conditions 24-27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- f. S-1703-162-4
 - Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- g. S-1703-180-4
 - Conditions 23-26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- h. S-1703-181-4
 - Conditions 21-24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Sections 5.7.2 and 5.7.3 apply to units subject to the requirements of Section 5.5. No units at this facility are subject to Section 5.5; therefore Sections 5.7.2 and 5.7.3 do not apply.

Section 5.7.4 applies to seasonal sources. The facility is not a seasonal source. Therefore, this section does not apply.

Section 5.7.5 states that the APCO shall not approve an alternative monitoring system or parametric monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits.

The facility has proposed to use an APCO-approved Alternate Monitoring System (Monitoring Scheme A). Therefore, the requirements of this section are not applicable.

Section 5.7.6 outlines requirements for monitoring SO_x emissions. Section 5.7.6.1 requires the operator of any unit that proposes to comply with Section 5.4.1.1 (fire exclusively on PUC-quality natural gas, commercial propane, butane, LPG, or a combination of these fuel gases) or Section 5.4.1.2 (fuel sulfur content limit of 5 grains/100 scf) to provide an annual fuel analysis.

a. S-1703-157-4

- Condition 23 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 21 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 21 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 19 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.8.1 states that the operator of any unit shall have the option of complying with either the applicable heat input, in lb/MMBtu, emission limits or the concentration, in 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).

a. S-1703-157-4

- Condition 10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.8.2 states 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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0.

a. S-1703-157-4

- Condition 5 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.8.4 states that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NO_x 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 readings evenly spaced out over the 15-consecutive-minute period.

a. S-1703-157-4

- Condition 16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 23 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.8.5 states 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 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.

a. S-1703-157-4

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 9 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 17 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 15 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1 states 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. S-1703-157-4

- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 31 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 29 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1.1 states that any unit operated under the exemption of Section 4.2 shall monitor and record, for each unit, the cumulative annual hours of operation on each fuel other than natural gas during periods of natural gas curtailment and equipment testing. None of the units operated at this facility are subject to the exemption listed in Section 4.2. Therefore, the requirements of this section are not applicable.

Section 6.1.2 applies to any unit that is subject to the requirements of Section 5.5. The units are not subject to the requirements of Section 5.5. Therefore, the requirements in this section are not applicable.

Section 6.1.3 requires that the operator of a unit subject to Section 5.5.1 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 operated at this facility are not subject to the requirements of Section 5.5.1 or the tune-up and monitoring requirements of Section 6.3.1. Therefore, the requirements in this section are not applicable.

Section 6.1.4 states that the operator performing start-up or shutdown of a unit shall keep records of the duration of each start-up or shutdown. The units operated at this facility do not contain start-up or shutdown provisions. Therefore, the requirements in this section are not applicable.

Section 6.1.5 states the operator of any unit firing on liquid fuel during a PUC-quality natural gas curtailment period shall record the sulfur content of the fuel, amount of fuel used, and duration of the natural gas curtailment period. None of the units at this facility have provisions for firing on alternative fuels during natural gas curtailments. Therefore, the requirements in this section are not applicable.

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

Pollutant	Units	Test Method Required
NO _x	ppmv	EPA Method 7E or ARB Method 100
NO _x	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
SO _x	ppmv	EPA Method 6C, EPA Method 8, or ARB Method 100
Stack Gas O ₂	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

- a. S-1703-157-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- b. S-1703-158-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- c. S-1703-159-6
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- d. S-1703-160-6
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- e. S-1703-161-6
 - Conditions 14-16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- f. S-1703-162-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- g. S-1703-180-4
 - Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- h. S-1703-181-4
 - Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.1 requires that units be tested to determine compliance with the applicable requirements of Section 5.2 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 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Section 5.2, the source testing frequency shall revert to at least once every 12 months.

a. S-1703-157-4

- Condition 6 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Condition 8 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Condition 7 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.2 states that in lieu of compliance with Section 6.3.1, compliance with the applicable emission limits in Section 5.2 shall be demonstrated by submittal of annual emissions test results to the District from a unit or units that represents a group of units.

a. S-1703-157-4

- Conditions 26-28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

b. S-1703-158-4

- Conditions 14-18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

c. S-1703-159-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

d. S-1703-160-6

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

e. S-1703-161-6

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

f. S-1703-162-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

g. S-1703-180-4

- Conditions 9-11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

h. S-1703-181-4

- Conditions 8-10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.4 states that no later than January 1, 2010, the operator of any unit shall submit to the APCO for approval an Emissions Control Plan. The compliance deadline for this requirement has already passed, and the facility has already submitted their Emissions Control Plan. Therefore, this section is no longer applicable.

I. District Rule 4351 – Boilers, Steam Generators, Process Heaters – Phase 1

District Rule 4351 limits NOx emissions from boilers, steam generators, and process heaters to levels consistent with reasonably available control technology (RACT). The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

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.

Current District Rule 4401 (amended 6/16/2011) has not been SIP approved. Attachment E contains the streamlining of the SIP approved District Rule 4401 (1/15/98) to the current District Rule 4401 to show the current rule is as stringent if not more than the SIP approved version.

a. S-1703-134-4 and '143-7

Section 3.0, Definitions

Section 3.20.2 defines leak as: the dripping of VOC-containing liquid or the detection of a concentration of total organic compound, above background, determined according to the test method specified in Section 6.3.3 that exceeds the values specified in Table 1, Section 3.20.1 and Section 3.20.2 of this rule.

Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Table 1 - Gas Leak in ppmv as Methane		
Type of Components	Major Gas Leak	Minor Gas Leak
1. PRDs	Greater than 10,000	400 to 10,000
2. Components other than PRDs	Greater than 10,000	2,000 to 10,000

Section 3.20.1 defines Major Liquid Leak as: a visible mist or a continuous flow of liquid that is not seal lubricant.

Section 3.20.2 defines Minor Liquid Leak as: a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute.

- Conditions 9 and 10 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 4.0, Exemptions

Section 4.1 states that any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing is exempt from the requirements of this Rule.

- Condition 11 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.0, Requirements

Section 5.1 states that an operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.1.1 or Section 5.1.2.

Section 5.1.1 requires that the steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.

Section 5.1.2 requires that 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.

- Condition 12 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.2.1 requires that an operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility.

Section 5.2.2 requires that the following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.2.1:

- 5.2.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.
- 5.2.2.2 Existence of a component with a major liquid leak as defined in Section 3.0.
- 5.2.2.3 Existence of a component with a gas leak greater than 50,000 ppmv.
- 5.2.2.4 Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 3.
 - 5.2.2.4.1 A minor liquid leak, or
 - 5.2.2.4.2 A minor gas leak, or
 - 5.2.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.

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

- Condition 13 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.3.1 requires that 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.

- Condition 14 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.3.2 requires that 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.

- Condition 15 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.3.3 requires that 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. Section 6.7 requires that by January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

- Condition 42 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.1 requires that except for pipes and unsafe-to-monitor components, as operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year.

Section 5.4.2 requires that 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.

- Condition 16 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.3 requires that in addition to the inspections required by Section 5.4.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service as follows:

5.4.3.1 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.

5.3.2 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.

- Conditions 17 and 18 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.4 requires that 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:

5.4.4.1 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.

- 5.4.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service.
 - 5.4.4.3 Except for PRDs subject to the requirements of Section 5.8.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced.
- Conditions 19, 20, and 21 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.5 requires that an operator shall inspect all unsafe-to-monitor components during each turnaround.

- Condition 22 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.4.6 requires that 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.

Section 5.5.1 requires that 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:

- 1) The date and time of leak detection.
 - 2) The date and time of leak measurement.
 - 3) For a gaseous leak, the leak concentration in ppmv.
 - 4) For a liquid leak, whether it is a major liquid leak or a minor liquid leak.
 - 5) Whether the component is an essential component, an unsafe-to-monitor component, or a critical component.
- Condition 23 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.2 requires that an operator shall keep the tag affixed to the component until an operator has met all of the following conditions:

- 1) Repaired or replaced the leaking component, and
 - 2) Re-inspected the component using the test method in Section 6.3.3, and
 - 3) The component is found to be in compliance with the requirements of this rule.
- Condition 24 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.3 requires that 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.

- Condition 25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.4 requires that except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.9.4.1, Section 5.9.4.2, or Section 5.9.4.3 as soon as practicable but not later than the time period specified in Table 3.

5.5.4.1 Repair or replace the leaking component; or

5.5.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or

5.5.4.3 Remove the leaking component from operation.

Table 4 - Repair Period	
Type of Leak	Repair Period in Calendar Days
Minor Gas Leak	14
Major Gas Leak less than or equal to 50,000 ppmv	5
Gas Leak Greater than 50,000 ppmv	2
Minor Liquid Leak	3
Major Liquid Leak	2

- Condition 26 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.5 requires that 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.

Section 5.5.6 requires that the time of the initial leak detection shall be the start of the repair period specified in Table 3.

- Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 5.5.7 requires that 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.

- Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1, Recordkeeping and Submissions

Section 6.1 requires that an operator shall maintain the records required by Sections 6.1 and 6.2 for a period of five (5) years. These records shall be made available to the APCO upon request.

- Conditions 29 and 31 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1.1 requires that 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.

- Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1.3 states that the 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.

Section 6.1.4 requires the inspection log be maintained pursuant to Section 6.4.

Section 6.1.5 states that 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.

Section 6.1.6 states that an operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.

- Condition 32 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.1.7 states that an operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.

Sections 6.1.8 and 6.1.9 specify recordkeeping and submission requirements for gauge tanks. This permit covers thermally enhanced oil recovery wells and does not include any gauge tanks. Therefore, the requirements of these sections are not applicable to this operation and no further discussion is required.

- Condition 33 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.2, Compliance Source Testing

Section 6.2.1 requires that 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 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.

Section 6.2.2.1, 6.2.2.2 and 6.2.2.3 states that the APCO may waive 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.

- Condition 34 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.2.3 specifies compliance testing requirements for gauge tanks. This permit covers thermally enhanced oil recovery wells and does not include any gauge tanks. Therefore, the requirements of this section are not applicable to this operation and no further discussion is required.

Section 6.3, Test Methods

Section 6.3.1 specifies that 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.

- Condition 35 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.2 requires that the 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 analyzed by CARB Method 432.

- Condition 36 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.3 specifies that leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with EPA Method 21. 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.

- Condition 37 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.3.4 requires that 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.

- Condition 38 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.4, Inspection Log

Section 6.4 states that effective on and after January 1, 2009, an operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed:

- 6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type.
 - 6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found.
 - 6.4.3 The date of leak detection and the method of leak detection.
 - 6.4.4 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.
 - 6.4.5 The date of repair, replacement, or removal from operation of leaking components.
 - 6.4.6 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.
 - 6.4.7 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.
 - 6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced.
 - 6.4.9 The inspector's name, business mailing address, and business telephone number.
 - 6.4.10 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.
- Condition 39 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.5, Employee Training Program

An operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.

- Condition 40 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.6, Operator Management Plan

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

- 6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule.
 - 6.6.2 Identification and description of any known hazard that might affect the safety of an inspector.
 - 6.6.3 Except for pipes, the number of components that are subject to this rule by component type.
 - 6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation.
 - 6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description).
 - 6.6.6 Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan.
 - 6.6.7 A detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team.
 - 6.6.8 A description of the training standards for personnel that inspect and repair components.
 - 6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary.
- Condition 41 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.7 states that by January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

- Condition 42 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

Section 6.8 states that the APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.

Section 7.0, Compliance Schedule

Section 7.0 establishes the compliance schedule requirements for existing and new steam-enhanced crude oil production wells. These are existing steam-enhanced crude oil production wells and are operating in compliance with the requirements of this rule.

K. District Rule 4601 – Architectural Coatings

Current District Rule 4601 (amended 12/17/2009) has not been SIP approved. Attachment E contains the streamlining of the SIP approved District Rule 4401 (10/31/01) to the current District Rule 4401 to show the current rule is as stringent if not more than the SIP approved version.

The following discussion addresses both SIP and Non SIP versions of this rule.

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). This rule further specifies labeling requirements, coatings thinning recommendations, and storage requirements.

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

- The tables outlining the VOC content of different specialty coatings has been largely replaced with the Table of Standards in Section 5.0.

- New labeling, reporting, test methodology and other requirements have been incorporated into the rule in order to allow ARB to administer the Averaging Program as detailed in Section 8.0.

The following permit requirements were added and/or revised to ensure compliance with this rule:

a. S-1703-0-2 – Facility-Wide Requirements

- Conditions 23, 24, 25 of the requirements of the proposed permit will assure that compliance with the requirements of this rule.

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 19800 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 Section 5.0. The rule also applies to gasoline delivery vessels.

- 4.2 The transfer of gasoline into any stationary storage container having a capacity of 2,000 gallons or less which was installed prior to July 1, 1975, if such container is equipped with a permanent submerged fill pipe, and provided no major modification is made on the container.

a. S-1703-67-2

According to Section 4.2, the requirements of this rule shall not apply to the transfer of gasoline into any stationary storage container having a capacity of 2,000 gallons or less which was installed prior to July 1, 1975, if such container is equipped with a permanent submerged fill pipe, and provided no major modification is made on the container.

This permit is exempt from Rule 4621 per section 4.2. Therefore, the requirement of this rule are not applicable to this permit.

M. District Rule 4622 – Gasoline Transfer Into Motor Vehicle Fuel Tanks

This rule applies to gasoline dispensing facilities that fuel motor vehicles except existing facilities with a throughput of less than or equal to 24,000 gallons of gasoline per calendar year and less than or equal to 10,000 gallons in any consecutive 30-day period.

4.2 The requirements of this rule shall not apply to gasoline storage containers that are exempt pursuant to Section 4.0 of Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants).

a. S-1703-67-2

According to Section 4.2, the requirements of this rule shall not apply to gasoline storage containers that are exempt pursuant to Section 4.0 of Rule 4621.

This permit is exempt from Rule 4621 per section 4.2. Therefore, the requirement of this rule are not applicable to this permit.

N. District Rule 4623 – Storage of Organic Liquids

a. S-1703-76-2, '77-2, '78-2, '79-2, '80-2, '81-2, '82-2, '91-2, '92-2, '93-2, '94-3, '102-2, '103-2, '104-2, '107-2, '108-3, '109-2, '113-2, '114-2, '115-2, '116-2, '117-2, '118-2, '119-2, '120-2, '126-2, '128-2, '129-2, '130-2, '131-2, '132-2, '133-2, '139-3, '140-3, '141-2, '144-3, '145-4, '146-4, '150-4, '152-4, '156-2, '163-2, '164-2, '165-2, '166-2, '167-2, '168-2, '169-2, '170-3, '171-3, '173-2, '174-2, '175-2, '176-2, '177-2, '178-2, '179-2, '184-7, '186-5, '187-3

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid with a true vapor pressure (TVP) of 0.5 psia or greater.

According to Section 4.4, tanks exclusively receiving and or storing organic liquids with a TVP less than 0.5 psia are exempt from this Rule except for complying with Sections 6.2, 6.3.6, 6.4 and 7.2. Therefore, the following condition shall be placed on the ATC:

- 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]

Applicant also states that the organic liquid TVP is less than 0.5 psia.

The current tank permits have an annual TVP testing requirement which references the 12/19/92 version of Rule 4623. The 12/19/92 version of Rule 4623 did not specify a testing frequency. Therefore, the permits will be updated to the current version of Rule 4623 which requires TVP testing every 24 months.

S-1703-76-2, '77-2, '78-2, '79-2, '80-2, '81-2, '82-2, '91-2, '92-2, '93-2, '94-3, '102-2, '103-2, '104-2, '107-2, '108-3, '109-2, '113-2, '114-2, '115-2, '116-2, '117-2, '118-2, '119-2, '120-2, '126-2, '128-2, '129-2, '130-2, '131-2, '132-2, '133-2, '141-2, '156-2, '163-2, '164-2, '165-2, '166-2, '167-2, '168-2, '169-2, '173-2, '174-2, '175-2, '176-2, '177-2, '178-2, '179-2

- Conditions 1 through 9 of the requirements of these permits will assure compliance with the requirements of this rule.

S-1703-139-3, '140-3, '144-3, '145-4, '146-4, '150-4, '152-4, '170-3, '171-3

- Conditions 7 through 14 of the requirements of this permit will assure compliance with the requirements of this rule.

S-1703-184-7

- Conditions 6 through 11 of the requirements of this permit will assure compliance with the requirements of this rule.

S-1703-186-5, 187-3

- Conditions 5 through 10 of the requirements of this permit will assure compliance with the requirements of this rule.

- b. S-1703-16-5, '17-3, '18-3, '19-3, '20-3, '21-3, '22-3, '23-3, '24-3, '25-3, '26-3, '191-2

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid with a true vapor pressure (TVP) of 0.5 psia or greater.

Section 5.1.1 requires that an operator shall not place, hold, or store crude oil in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Table 1: General VOC Control System Requirements			
Tank Capacity (gal)	TVP and Crude Oil Throughput		
	0.5 psia to <1.5 psia	1.5 psia to <11 psia	≥11 psia
(Group A) 1,100 to 19,800	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group B) >19,800 to 39,600	Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system
(Group C) >39,600	Internal floating roof, or external floating roof, or vapor recovery system	Internal floating roof, or external floating roof, or vapor recovery system	Pressure vessel or vapor recovery system

The above tanks are connected to a vapor recovery system; therefore, they satisfy the VOC control system requirements of Table 1.

Section 5.2 specifies the requirements for pressure-vacuum relief valves. Since the tanks are connected to a vapor recovery system, the requirements of this section do not apply.

Section 5.3 specifies the requirements for External Floating Roof Tanks. Since the tanks are fixed roof tanks, the requirements of this section do not apply.

Section 5.4 specifies the requirements for Internal Floating Roof Tanks. Since the tanks are fixed roof tanks, the requirements of this section do not apply.

Section 5.5 specifies the requirements for Floating Roof Deck Fittings. Since the tanks are connected to a vapor control system, the requirements of this section do not apply.

Section 5.6 specifies the requirements for Vapor Recovery Systems. Since the tanks are connected to a vapor recovery system, the requirements in this section apply.

Section 5.6.1 requires that fixed roof tanks be fully enclosed and 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:

- 5.6.1.1 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
- 5.6.1.2 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.

Section 5.6.2 requires 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.

Section 5.6.3 requires all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. The following condition will ensure compliance with section 5.6.3:

Section 6.0 outlines the administrative requirements of Rule 4623.

Section 6.1 covers inspection of floating roof tanks. There are no floating roof tanks, so section 6.1 does not apply.

Section 6.2 concerns TVP and API gravity testing of stored organic liquids in uncontrolled fixed roof tanks. There are no uncontrolled tanks, so section 6.2 does not apply.

Section 6.3 outlines the recordkeeping requirements of Rule 4623. An operator shall retain accurate records required by this rule for a period of five years, and records shall be made available to the APCO upon request.

No other recordkeeping requirements apply to the tanks or vapor recovery system.

S-1703-16-5, '17-3, '18-3, '19-3, '23-3, '25-3, '26-3

- Conditions 10 through 18 of the requirements of the proposed permits will assure compliance with the requirements of this rule.

S-1703-'18-3, '20-3, '21-3, '22-3, '24-3

- Conditions 11 through 19 of the requirements of the proposed permits will assure compliance with the requirements of this rule.

S-1703-191-2

- Conditions 2, 4, 5, 6, and 9 of the requirements of the proposed permits will assure compliance with the requirements of this rule.

Continued compliance with the requirements of this rule is expected.

O. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

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

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

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

- Condition 29 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

P. District Rule 8031 – Bulk Materials

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

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

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

- Condition 30 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

Q. District Rule 8041 – Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to any of the following rules where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road: Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), 8061 (Paved and Unpaved Roads), and 8071 (Unpaved Vehicle and Equipment Traffic Areas).

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.9. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

- Condition 31 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

R. District Rule 8051 – Open Areas

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

This rule applies to any open area having 0.5 acres or more within urban areas, or 3.0 acres or more within rural areas; and contains at least 1000 square feet of disturbed surface area.

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

- Condition 32 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

S. District Rule 8061 – Paved and Unpaved Roads

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

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

- Condition 33 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

T. District Rule 8071 – Unpaved Vehicle/Equipment Traffic Areas

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas.

This rule applies to any unpaved vehicle/equipment traffic area.

Section 5.0 requires in addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII to limit Visible Dust Emissions (VDE) to 20% opacity and comply with the requirements of a stabilized unpaved road. If vehicle activity originates from and remains exclusively within an unpaved vehicle/equipment traffic area, section 5.2 may be implemented to limit VDE to 20% opacity.

- Condition 34 of permit unit -0-2 ensures compliance and the rule amended date reference has been updated.

T. 40 CFR Part 60, Subpart A – General Provisions

This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section. Section 60.18 of this Subpart was amended December 22, 2008. The Section was amended to revise the section heading, revise paragraph (a), and by adding paragraphs (g), (h), and (i).

The two flare units, S-1703-134 and '143 are subject to this Section. The revision to section and the revision to paragraph (a) will not affect the units in this project. In addition, flares are not subject to the requirements in paragraphs (g), (h), and (i). Therefore, the units in this project were not affected by the revisions to this Subpart.

U. 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Industrial Steam Generators

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction). Subpart Dc has standards for SO_x and PM₁₀.

§60.332 Standard for Sulfur Dioxide:

Since coal is not combusted by the steam generators in this project, the requirements of this section are not applicable.

§ 60.43c Standards for Particulate Matter

The steam generators are not fired on coal, combusts mixtures of coal with other fuels, combusts wood, combusts mixtures of wood with other fuels, or oil; therefore they will not be subject to the requirements of this section.

§60.44c Compliance and Performance Tests Methods and Procedures for Sulfur Dioxide.

Since the steam generators in this project are not subject to the sulfur dioxide requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.45c Compliance and Performance Test Methods and Procedures for Particulate Matter

Since the steam generators in this project are not subject to the particulate matter requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.46c Emission Monitoring for Sulfur Dioxide

Since the steam generators in this project are not subject to the sulfur dioxide requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.47c Emission Monitoring for Particulate Matter

Since the steam generators in this project are not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.48c Reporting and Recordingkeeping Requirements

Section 60.48c (a) states that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

The design heat input capacity and type of fuel combusted at the facility will be listed on the unit's equipment description. No conditions are required to show compliance with this requirement.

- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel mixture of fuels under §60.42c or §40.43c.

This requirement is not applicable since the units are not subject to §60.42c or §40.43c.

- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

The facility has not proposed an annual capacity factor; therefore one will not be required.

- (4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

This requirement is not applicable since the units will not be equipped with an emerging technology used to control SO₂ emissions.

Section 60.48 c (g) states that the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

Section 60.48 c (i) states that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record. District Rule 4306 requires that records be kept for five years.

- a. S-1703-157-4
 - Condition 29 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- b. S-1703-158-4
 - Condition 29 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- c. S-1703-159-6
 - Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- d. S-1703-160-6
 - Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- e. S-1703-161-6
 - Condition 30 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- f. S-1703-162-4
 - Condition 25 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- g. S-1703-180-4
 - Condition 28 of the requirements of the proposed permit will assure that compliance with the requirements of this section.
- h. S-1703-181-4
 - Condition 27 of the requirements of the proposed permit will assure that compliance with the requirements of this section.

V. 40 CFR Part 64-CAM

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

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

- a. S-1703-'76-2, '77-2, '78-2, '79-2, '80-2, '81-2, '82-2, '91-2, '92-2, '93-2, '94-2, '102-2, '103-2, '104-2, '107-2, '108-2, '109-2, '113-2, '114-2, '115-2, '116-2, '117-2, '118-2, '119-2, '120-2, '126-2, '128-2, '129-2, '130-2, '131-2, '132-2, '133-2, '141-3, '156-2, '163-2, '164-2, '165-2, '166-2, '167-2, '168-2, '169-2, '173-2, '174-2, '175-2, '176-2, '177-2, '178-2, '179-3,

These permit units have emission limits for VOC but do not have add-on controls. Therefore, these permit units are not subject to CAM for VOC.

- b. S-1703-16-5, '17-3, '18-3, '19-3, '20-3, '21-3, '22-3, '23-3, '24-3, '25-3, '26-3, '139-3, '140-3, '144-3, '145-4, '146-4, '150-4, '152-3, '170-3, '171-3, '184-7, '186-5, '187-3, '191-2

These permit units are not subject to CAM since vapor control system is a collection system rather than a control device.

- c. S-1703-27-4

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

- d. S-1703-67-2

This permit unit does not have an emissions limit for VOC. Therefore, this permit unit is not subject to CAM for VOC.

- e. S-1703-134-4, '143-7

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

f. S-1703-157-4, '158-4, '159-6, '160-6, '161-6, '162-4, '180-4, '181-4

These permit units have emissions limits for SO_x, PM₁₀, CO, and VOC but they do not have add-on controls for these criteria pollutants. Therefore, these permit units are not subject to CAM for SO_x, PM₁₀, CO, and VOC.

These permits may be subject to CAM for NO_x, as there is a NO_x limit, and they do have add-on controls in the form of FGR. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_x emissions. As shown below, the pre-control potential to emit is not greater than the major source threshold of 20,000 pounds NO_x/year. Therefore, these permit units are not subject to CAM.

The maximum rating for these units is 62.5 MMBtu/hr.

$62.5 \text{ MMBtu/hr} \times 0.0085 \text{ lb NO}_x/\text{MMBtu} \times 8760 \text{ hrs/year} \div (1 - 0.36) = 7,271 \text{ lbs NO}_x/\text{year}$

IX. PERMIT SHIELD

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

A. Requirements Addressed by Model General Permit Templates

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

X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

XI. ATTACHMENTS

- A. Final Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Authority to Construct Permits to be Converted
- D. Detailed Facility List
- E. Rule 4311, 4401, and 4601 Stringency Analysis
- F. Comments and Responses

ATTACHMENT A

Final Renewed Title V Operating Permit



Permit to Operate

FACILITY: S-1703

EXPIRATION DATE: 07/31/2016

LEGAL OWNER OR OPERATOR:

MACPHERSON OIL COMPANY

MAILING ADDRESS:

PO BOX 5368
BAKERSFIELD, CA 93388

FACILITY LOCATION:

HEAVY OIL CENTRAL STATIONARY SOURCE
CA

FACILITY DESCRIPTION:

OIL AND NATURAL GAS PRODUCTION

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

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

Seyed Sadredin
Executive Director / APCO

David Warner
Director of Permit Services

San Joaquin Valley Air Pollution Control District

FACILITY: S-1703-0-2

EXPIRATION DATE: 07/31/2016

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE, CA
S-1703-0-2; Jan 4 2012 4:05PM -- TOMS

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, 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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 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 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. Should the facility, as defined in 40 CFR 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 CFR 68.10. The facility shall certify compliance as part of the annual certification as required by 40 CFR part 70. [40 CFR 68] Federally Enforceable Through Title V Permit
43. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin every June 1, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of each reporting period. [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-1703-16-5

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THRU '16.

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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 and components associated with emergency flare. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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
8. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All VOC vapors shall be compressed and delivered to tank dehydration boiler, flare S-1703-27, or field electric generators. [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. Vapor control system compressor shall activate before tanks internal pressure exceeds pressure relief valve setting. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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
18. 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] Federally Enforceable Through Title V Permit
19. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [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.

24. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-17-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-18-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '1-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-19-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-20-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '1-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-21-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-22-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '16-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-23-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
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21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-24-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
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6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
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13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
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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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-25-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (2,000 BBL) FIXED ROOF WASTE WATER TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '26.

PERMIT UNIT REQUIREMENTS

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 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
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. 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
6. 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
7. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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
9. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Produced water shall be piped to S-91 water treatment facilities. [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. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
14. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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
17. 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] Federally Enforceable Through Title V Permit
18. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
19. 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
20. 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
21. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-26-3

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) FIXED ROOF SKIM OIL TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-27-4

EXPIRATION DATE: 07/31/2016

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE

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. Flare shall be designed to provide enough natural draft air for smokeless combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Hydrogen sulfide content of gas flared shall not exceed 3 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Gas flowrate to flare shall not exceed 300,000 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Flare shall operate with no visible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed the following: PM-10 - 0.03 lbm/hr, NO₂ - 1.75 lbm/hr, VOC - 0.04 lbm/hr, and CO - 0.44 lbm/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
8. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once every two weeks for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Actual flare emissions shall not exceed 20 tons VOC/year. Process information, including fuel usage data for the flare and process rates for operations controlled by the flare, shall be submitted to the District annually to demonstrate compliance with this requirement. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
12. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946-77, and ASTM D2382-76. [40 CFR 60.18 (f)(3-6)] 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.

13. Air-assisted flares shall be operated with an exit velocity less than V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
14. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
15. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
16. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
17. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
18. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
19. A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
20. The outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
21. 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 equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
22. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
23. 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. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit
24. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to District Rule 4311 Section 6.5 and all commitments listed in that plan have been met. [District Rule 4311, 5.8] Federally Enforceable Through Title V Permit
25. The operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare. [District Rule 4311, 5.10] Federally Enforceable Through Title V Permit
26. Permittee shall maintain copies of the compliance determination conducted pursuant to Section 6.4.1, copies of the source testing result conducted pursuant to Section 6.4.2, a copy of the approved flare minimization plan pursuant to Section 6.5, effective on and after July 1, 2012, a copy of annual reports submitted to the APCO pursuant to Section 6.2 and monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9 and 6.10. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit
27. All records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request. [District Rule 4311, 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.

28. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311, 6.2.1] Federally Enforceable Through Title V Permit
29. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO that summarizes all Reportable Flaring Events 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 and shall include: 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, 6.2.2] Federally Enforceable Through Title V Permit
30. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period include: 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; 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, 6.2.3] Federally Enforceable Through Title V Permit
31. NOx emissions in pounds per million BTU shall be determined by using EPA Method 19. NOx and O2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311, 6.3.2 and 6.3.3] Federally Enforceable Through Title V Permit
32. Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, EPA Method 25A or 25B, or an alternative method approved by the APCO, ARB and EPA. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, ASTM Method D 4810-88, or an alternative method approved by the APCO, ARB and EPA. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit
33. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85, or an alternative method approved by the APCO, ARB and EPA. [District Rule 4311, 6.3.4] Federally Enforceable Through Title V Permit
34. Vent gas flow shall be determined using one of the following: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter; or an alternative method approved by the APCO, ARB, and EPA. [District Rule 4311, 6.3.5] Federally Enforceable Through Title V Permit
35. The operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). [District Rule 4311, 6.4.1] 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.

36. 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 shall submit a flare minimization plan (FMP) to the APCO for approval and shall include: 1) A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems; 2) Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment; 3) A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation;; 4) An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown;; 5) An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means; 6) An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2; 7) Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule. [District Rule 4311, 6.5.1] Federally Enforceable Through Title V Permit
37. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. [District Rule 4311, 6.5.2] Federally Enforceable Through Title V Permit
38. An updated FMP shall be submitted by the operator addressing new or modified equipment, prior to installing the equipment only if: 1) The equipment change would require an Authority To Construct (ATC) and would impact the emissions for the flare; 2) The ATC is deemed complete after June 18, 2009; 3) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP and has no associated increase in flare emissions. [District Rule 4311, 6.5.3] Federally Enforceable Through Title V Permit
39. When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. and provide a justification for this designation and also submit a separate copy of the document with the information designated confidential redacted. [District Rule 4311, 6.5.4] Federally Enforceable Through Title V Permit
40. Permittee shall keep accurate records of the amount of daily gas flow to the flare. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
41. Hydrogen sulfide content of the gas flared shall be determined using CARB Method 15 or EPA Method 11. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
42. Gas flared shall be tested weekly for hydrogen sulfide. If compliance with hydrogen sulfide emission limits has been demonstrated for 8 consecutive weeks, then the gas flared testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-67-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

THREE 600 GALLON AND 1,000 GALLON ABOVEGROUND STORAGE TANKS WITH FOUR GASOLINE DISPENSING NOZZLES (INSTALLED PRIOR TO JULY 1, 1975)

PERMIT UNIT REQUIREMENTS

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 and 4622]
2. 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 Rule 4622]
3. The storage container(s) shall be installed, maintained, and operated such that they are leak-free. [District Rule 4621]
4. The Phase I and Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as determined in accordance with the test method specified in this permit. [District Rules 4621 and 4622]
5. A leak is defined 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 of total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with EPA Test Method 21. [District Rules 4621 and 4622]
6. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo container, which attest to the vapor integrity of the container. [District Rule 4621]
7. 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]
8. Upon identification of any major defects, the permittee shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired. 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. 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. [District Rule 4622]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. The permittee shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with the requirements of this permit. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) copies of all vapor recovery performance tests; 2) all applicable ARB Executive Orders, Approval Letters, and District Permits; 3) 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; 4) system and/or component testing requirements, including test schedules and passing criteria for each of the standard tests required by this permit (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. [District Rule 4622]
10. The permittee shall conduct periodic maintenance inspections based on the greatest monthly throughput of gasoline dispensed by the facility in the previous year 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 and 4622]
11. 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]
12. 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]
13. 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]
14. 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]
15. For certified Phase II vapor recovery systems with liquid removal devices, the permittee shall perform and pass an ARB TP-201.6 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 measured by lowering the gasoline dispensing nozzle into a container until such time that no more liquid drains from the nozzle. The amount of liquid drained into the container shall be measured using a graduated cylinder or graduated beaker. The vapor path shall be inspected once per month if monthly throughput is below 2,500 gallons or once per week otherwise. [District Rule 4622]
16. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B or TP-206.3 at least once every 12 months. [District Rules 4621 and 4622]
17. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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. 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]
21. 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]
22. The permittee 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 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; 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]
23. 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]
24. The permittee shall maintain monthly and annual gasoline throughput records. [District Rules 4621 and 4622]
25. 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 District inspection upon request. [District Rules 4621 and 4622]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-76-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1001

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-77-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1002

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-78-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1003

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-79-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1004

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-80-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1008

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-81-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1012

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-82-2

EXPIRATION DATE: 07/31/2016

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1013

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The 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] 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] 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] Federally Enforceable Through Title V Permit
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 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-1703-91-2

EXPIRATION DATE: 07/31/2016

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S165

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-92-2

EXPIRATION DATE: 07/31/2016

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S166

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-93-2

EXPIRATION DATE: 07/31/2016

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S136

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-94-3

EXPIRATION DATE: 07/31/2016

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

10,500 GALLON (250 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC6

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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
3. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
4. 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, 6.2] Federally Enforceable Through Title V Permit
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
6. 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
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
9. This tank shall be subject to the requirements of Rule 4623 if the tank loses its exemption under section 4.0 on the date the exemption status is lost. [District Rule 4623, 7.3] Federally Enforceable Through Title V Permit
10. The control requirements of Rule 4623, Section 5.0 do not apply to this source. A permit shield is granted from Rule 4623, Section 5.0 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-1703-102-2

EXPIRATION DATE: 07/31/2016

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #101

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-103-2

EXPIRATION DATE: 07/31/2016

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #102

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-104-2

EXPIRATION DATE: 07/31/2016

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #103

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-107-2

EXPIRATION DATE: 07/31/2016

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S156

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-108-2

EXPIRATION DATE: 07/31/2016

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S158

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-109-2

EXPIRATION DATE: 07/31/2016

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #50S105

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-113-2

EXPIRATION DATE: 07/31/2016

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #10S640

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-114-2

EXPIRATION DATE: 07/31/2016

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S157

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-115-2

EXPIRATION DATE: 07/31/2016

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #501

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-116-2

EXPIRATION DATE: 07/31/2016

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #502

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-117-2

EXPIRATION DATE: 07/31/2016

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #503

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-118-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S129

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-119-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S595

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-120-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S700

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-126-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) OPEN TOP PETROLEUM STORAGE TANK #10S124

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-128-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S125

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-129-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC1

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-130-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #20S150

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-131-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S168

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-132-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #ACT

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-133-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S110

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-134-4

EXPIRATION DATE: 07/31/2016

SECTION: 18 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. There shall be no more than 3 leaks from the vapor collection and control system including condensate handling, at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Condensate collection vessel shall be equipped with high efficiency mist eliminator. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All fluids and gas produced from steam drive wells shall be piped to tank battery S-1703-16 thru '-26 only. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Well vent gas shall be incinerated in 4.0 MMBtu/hr tank heater boiler and/or tank battery flare S-1703-27. [District NSR Rule] Federally Enforceable Through Title V Permit
8. VOC emission rate shall not exceed 0.77 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
10. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [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, 5.0. [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. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. 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 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.1.1, and 5.1.2] Federally Enforceable Through Title V Permit
13. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
14. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
15. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
16. Except for pipes and unsafe-to-monitor components, permittee 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 Rule 4401 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, 5.4.1 & 5.4.2] Federally Enforceable Through Title V Permit
17. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
18. 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 Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
19. Permittee 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. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
20. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
22. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
23. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
24. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
25. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
26. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the 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: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
27. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.5.5, and 5.5.6] Federally Enforceable Through Title V Permit
28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit
29. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit
30. Permittee 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
31. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
32. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit
33. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

34. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. 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. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
35. 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
36. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
37. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. 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 centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
38. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
39. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) 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; 5) The date of repair, replacement, or removal from operation of leaking components; 6) 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; 7) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) 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. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit
40. 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
41. In accordance with the approved 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
42. 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, 5.3.3, and 6.7] Federally Enforceable Through Title V Permit

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

43. 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 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-139-3

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID# 10RM105-U.S.L. LEASE WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-139, '-140, '-170, '-171, AND '-191 VENTING TO TEOR SYSTEM LISTED ON '-143 (U.S.L. LEASE)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of gas 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-140-3

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

252,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID # 6RM107-U.S.L. LEASE VENTING TO VAPOR CONTROL SYSTEM LISTED ON '139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-141-2

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF WASH TANK ID # 5RM102 - U.S.L. 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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-143-7

EXPIRATION DATE: 07/31/2016

SECTION: NE20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

THEMALLY ENHANCED OIL RECOVERY (TEOR) WELL VENT VAPOR CONTROL SYSTEM SERVING 80 STEAM ENHANCED WELLS AND TANK VAPOR CONTROL SYSTEMS S-1703-139, -144, AND -184 SERVED BY H2S SCRUBBER SYSTEM WITH COMPRESSED VAPOR PIPING TO STEAM GENERATORS S-1703-157, -158, -159, -160, -161, AND -162 FOR INCINERATION OF UNCONDENSED VAPORS OR TO GAS DISPOSAL WELL

PERMIT UNIT REQUIREMENTS

1. The operation shall be equipped with heat exchangers, free water knockouts, gas liquid separators, vapor compressors with electric motors, and compressed vapor piping to any of the following steam generators S-1703-157, -158, -159, -160, -161, or -162. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Noncondensibles shall be incinerated in steam generators S-1703-157, -158, -159, -160, -161, or -162 or injected into DOGGR-approved disposal well. [District NSR Rule] Federally Enforceable Through Title V Permit
3. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
4. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
5. 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
6. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas 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
9. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
10. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [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. 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. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
12. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. 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 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.1.1, and 5.1.2] Federally Enforceable Through Title V Permit
13. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit
14. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
15. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
16. Except for pipes and unsafe-to-monitor components, permittee 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 Rule 4401 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, 5.4.1 & 5.4.2] Federally Enforceable Through Title V Permit
17. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
18. 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 Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

19. Permittee 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. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
20. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
21. Except for PRDs, permittee 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, 5.4.5] Federally Enforceable Through Title V Permit
22. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
23. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
24. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
25. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
26. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the 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: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
27. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.5.5, and 5.5.6] Federally Enforceable Through Title V Permit
28. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit
29. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit
30. Permittee 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
31. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [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. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit
33. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit
34. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. 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. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
35. 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
36. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
37. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. 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 centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
38. 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
39. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) 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; 5) The date of repair, replacement, or removal from operation of leaking components; 6) 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; 7) 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; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) 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. [District Rule 4401, 6.1.5 & 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.

40. 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
41. In accordance with the approved 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
42. 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, 5.3.3, and 6.7] Federally Enforceable Through Title V Permit
43. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-144-3

EXPIRATION DATE: 07/31/2016

SECTION: 18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-240 WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-144, '-145, '-146, '-150, AND '-152 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-143 OR TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162

PERMIT UNIT REQUIREMENTS

1. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 4623]
4. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]
5. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 4623]
6. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201]

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

8. 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
9. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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]
11. 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]
12. 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]
13. 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]
14. 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]
15. 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]
16. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201]
17. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
18. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
21. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-145-4

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK T-245 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-146-4

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL WASH TANK T-110 VENTING TO VAPOR CONTROL SYSTEM LISTED ON ' -144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-150-4

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

3,300 BBL FIXED ROOF CRUDE OIL WASH TANK T-220 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-152-3

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2500 BBL) FIXED ROOF SLOP TANK T-320A VENTING TO VAPOR CONTROL SYSTEM LISTED ON
'-144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-156-2

EXPIRATION DATE: 07/31/2016

SECTION: 18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON FREE WATER KNOCKOUT TANK 5RM101

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-157-4

EXPIRATION DATE: 07/31/2016

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #610 WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144 OR '-184

PERMIT UNIT REQUIREMENTS

1. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
2. Emission rates shall not exceed any of the following: NO_x (as NO₂) - 7 ppmv @ 3% O₂ or 0.008 lb/MMBtu; CO - 38 ppmv @ 3% O₂; or PM₁₀ - 0.006 lb/MMBtu; VOC - 0.003 lb/MMBtu. [District Rule 4320 and 4351, 5.2] Federally Enforceable Through Title V Permit
3. Fuel gas sulfur content shall not exceed 1 grain of sulfur per 100 dscf. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit
4. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
6. Source testing to measure NO_x 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 Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. 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 NO_x and CO source testing requirement. [District Rule 4305, 6.3; District Rule 4351,6.3; District Rule 2520, 9.4.21] Federally Enforceable Through Title V Permit
8. Source testing shall be conducted by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Source testing shall be conducted using the methods and procedures approved by the District. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARE Method 100, NO_x (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ABS Method 100; and fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rule 1081; 4305, 6.2; 4320, and 4351, 6.2] Federally Enforceable Through Title V Permit
14. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. If either the NO_x 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 Rule 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturers 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
17. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
18. Permittee shall maintain records of noncertified (non-PUC/FERC regulated) fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
19. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (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
20. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur precombustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
26. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rule 4305, 6.3.2 and 4351, 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rule 4305, 6.3.2; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
28. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. Nitrogen oxide (NO_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 NO₂/MMBtu of heat input (hhv). [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 AND 4320] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-158-4

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #620 WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144 OR '-184

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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. Fuel gas sulfur content shall not exceed 2.0 grains of sulfur per 100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Emission rates shall not exceed any of the following: NO_x (as NO₂) - 7 ppmv @ 3% O₂ or 0.008 lb/MMBtu; CO - 38 ppmv @ 3% O₂; or SO_x (as SO₂) - 0.0057 lb/MMBtu; PM₁₀ - 0.0076 lb/MMBtu; or VOC - 0.003 lb/MMBtu. [District Rules 4320 and 4351, 5.2] Federally Enforceable Through Title V Permit
5. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
6. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District Rule 2201]
7. 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
8. Source testing to measure natural gas-combustion NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
9. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4320. [District Rules 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.

11. 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
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. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
14. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_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_x or CO emissions 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 supercede a more stringent NSR or PSD permit testing requirement). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. The following conditions must be met for representative unit(s) to be used to test for NO_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 4305 and 4306] Federally Enforceable Through Title V Permit
16. All units in a group for which representative units are source tested for NO_x and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. All units in a group for which representative units are source tested to for NO_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 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 and 4306] Federally Enforceable Through Title V Permit
18. The number of representative units source tested for NO_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 Rules 4305 and 4306] 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 2201; 2520, 9.4.2 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
25. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
28. Permittee shall maintain records of fuel gas sulfur content. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-159-6

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #630 WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144 OR '-184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval. [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOX @ 3% O2 or 0.008 lb-NOX/MMBtu; 0.00285 lb-SOX/MMBtu; 0.006 lb-PM10/MMBtu; 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
5. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

9. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
10. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. 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
12. 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
13. The following test methods 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 fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
14. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
17. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. 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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
21. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
23. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-160-6

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #640 WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOX @ 3% O2 or 0.008 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
5. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

9. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
10. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. 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
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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
14. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
17. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
21. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
22. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
23. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-161-6

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOX @ 3% O2 or 0.0085 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
6. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. 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
14. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] 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 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. Permittee shall conduct sample analysis of fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-162-4

EXPIRATION DATE: 07/31/2016

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #660 WITH COEN QLN LOW NOX BURNER AND FGR, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0085 lb/MMBtu or 7 ppmv @ 3% O₂, Sox (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.0076 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
6. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
7. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, 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.

9. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
10. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
11. 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
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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H₂S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
14. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
17. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

20. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
22. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] 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 by volume 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
25. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-163-2

EXPIRATION DATE: 07/31/2016

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF CRUDE OIL/WASTE WATER STORAGE TANK #50S106

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-164-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

31,500 GALLON/750 BARREL OPEN TOP WASTEWATER TANK [TANK #TOC002]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-165-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON/1,000 BBL FIXED ROOF WASTEWATER TANK [TANK #TOC003]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-166-2

EXPIRATION DATE: 07/31/2016

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #ES1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-167-2

EXPIRATION DATE: 07/31/2016

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S105]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-168-2

EXPIRATION DATE: 07/31/2016

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S190]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-169-2

EXPIRATION DATE: 07/31/2016

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BARREL FIXED ROOF BLEED TANK [TANK #J-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-170-3

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

142,800 GALLON/3,400 BBL FIXED ROOF WASTEWATER TANK [TANK #34RM105] VENTING TO VAPOR CONTROL SYSTEM LISTED ON '139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-171-3

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL FIXED ROOF SKIM TANK [TANK #S201] VENTING TO VAPOR CONTROL SYSTEM LISTED ON 1-139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-173-2

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-174-2

EXPIRATION DATE: 07/31/2016

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-2]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-175-2

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA6]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-176-2

EXPIRATION DATE: 07/31/2016

SECTION: SE20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA7]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-177-2

EXPIRATION DATE: 07/31/2016

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-178-2

EXPIRATION DATE: 07/31/2016

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-2]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-179-3

EXPIRATION DATE: 07/31/2016

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

126,000 GALLON/3,000 BBL OPEN TOP WASTEWATER TANK [TANK #3RM104]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-180-4

EXPIRATION DATE: 07/31/2016

SECTION: NE16 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR C.E. NATURAL GAS FIRED STEAM GENERATOR #670 WITH COEN QLN LOW NOX BURNER AND FGR (C-5, DIS# 27554-74)

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Unit shall be fired on PUC-regulated quality natural gas only. No TEOR or TVR gas may be combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0085 lb/MMBtu or 7 ppmv @ 3% O₂, Sox (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.009 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, 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.

10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
12. 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
13. 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
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 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
18. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. 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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [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.

21. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
22. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
24. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume 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
27. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
28. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-181-4

EXPIRATION DATE: 07/31/2016

SECTION: SW09 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR #680 WITH LO-NOX BURNER AND FGR, O2 CONTROLLER/ ANALYZER (B-1, DIS# 27529-71)

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: NOx (as NO2) - 7 ppmv @ 3% O2 or 0.008 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 41 ppmv @ 3% O2; PM10 - 0.0076 lb/MMBtu; or VOC - 0.007 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
6. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
9. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 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.

10. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. 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
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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
14. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
17. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
21. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [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.

22. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
23. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
29. Formerly S-1109-31.

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-184-7

EXPIRATION DATE: 07/31/2016

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,000 BARREL FREE WATER KNOCKOUT TANK T-1210 SERVED BY THE VAPOR CONTROL SYSTEM SHARED WITH S-1703-186 AND -187, INCLUDING HEAT EXCHANGERS, FREE WATER KNOCKOUTS, GAS LIQUID SEPARATORS, VAPOR COMPRESSORS WITH ELECTRIC MOTORS, AND COMPRESSED VAPOR PIPING TO ANY OF THE FOLLOWING STEAM GENERATORS: S-1703-157, -158, -159, -160, OR -161

PERMIT UNIT REQUIREMENTS

1. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201]
4. VOCs collected from tank shall vent only to vapor control system listed on this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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
6. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
10. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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]
12. 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]
13. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201]
14. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
15. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 4623] Federally Enforceable Through Title V Permit
16. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 4623]
17. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 4623] Federally Enforceable Through Title V Permit
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-186-5

EXPIRATION DATE: 07/31/2016

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) STOCK TANK T-1230 SERVED BY THE VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-187-3

EXPIRATION DATE: 07/31/2016

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF SLOP OIL TANK #T-1260 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-191-2

EXPIRATION DATE: 07/31/2016

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL TEST TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1703-139 (U.S.L. LEASE)

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-1703-0-1

EXPIRATION DATE: 07/31/2005

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020. [District Rules 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (Permits Required) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE, CA
S-1703-0-1; Oct 26 2011 7:48PM - TOMS

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.6.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520. [District Rules 2520, 9.6.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.8] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.9.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.9.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.9.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the 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, 9.9.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.10] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the 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, 9.14.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.14.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.14.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.14.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101, by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. No person shall supply, sell, solicit or apply any architectural coating, except specialty coatings, that contains more than 250 grams of VOC per liter of coating (less water and exempt compounds, and excluding any colorant added to tint bases), or manufacture, blend, or repackage such coating with more than 250 grams of VOC per liter (less water and exempt compounds, and excluding any colorant added to tint bases) for use within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. No person shall apply, sell, solicit, or offer for sale any specialty architectural coating listed in the Table of Standards (District Rule 4601, Table 1 and Table 2), nor manufacture, blend, or repackage such coating for use within the District, which contains VOCs (less water and exempt compounds, excluding any colorant added to tint bases) in excess of the specified limits listed in Table 1 (grams of VOC per liter of coating as applied less water and exempt compounds, excluding any colorant added to tint bases) and in Table 2 (grams of VOC per liter of material), except as provide in Section 5.3 of Rule 4601. [District Rule 4601, 5.2] Federally Enforceable Through Title V Permit
25. All VOC-containing materials shall be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
26. A person shall not use VOCs for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used. [District Rule 4601, 5.5] Federally Enforceable Through Title V Permit
27. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.2. [District Rule 4601, 6.1 and 6.2] Federally Enforceable Through Title V Permit
28. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.14.1 and 10.0] Federally Enforceable Through Title V Permit
29. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
30. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
31. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8020 unless specifically exempted under section 4 of Rule 8020. [District Rule 8020] Federally Enforceable Through Title V Permit
32. Outdoor handling and storage of any bulk material which emits dust shall comply with the requirements of SJVUAPCD Rule 8030, unless specifically exempted under section 4 of Rule 8030. [District Rule 8030] Federally Enforceable Through Title V Permit
33. Any paved road over 3 miles in length, and any unpaved roads over half a mile in length, constructed after October 10, 1993 shall use the design criteria and dust control measures of, and comply with the administrative requirements of, SJVUAPCD Rule 8060 unless specifically exempted under section 4 of Rule 8060. [District Rule 8060] Federally Enforceable Through Title V Permit
34. 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

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

35. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.17] Federally Enforceable Through Title V Permit
36. 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
37. 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
38. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
39. Should the facility, as defined in 40 CFR 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 CFR 68.10. The facility shall certify compliance as part of the annual certification as required by 40 CFR part 70. [40 CFR 68] Federally Enforceable Through Title V Permit
40. On May 31, 2001, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of each reporting period. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-16-6

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THRU '-26.

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Rule 4623 Section 6.4.7. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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 and components associated with emergency flare. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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
8. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All VOC vapors shall be compressed and delivered to tank dehydration boiler, flare S-1703-27, or field electric generators. [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. Vapor control system compressor shall activate before tanks internal pressure exceeds pressure relief valve setting. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
15. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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
18. 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] Federally Enforceable Through Title V Permit
19. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
20. 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
21. 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
22. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [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.

24. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-17-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-18-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-19-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU ' -26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-20-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-21-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-22-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '1-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-23-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU ' -26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
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13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-24-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '1-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
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10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-25-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

210,000 GALLON (2,000 BBL) FIXED ROOF WASTE WATER TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '1-26.

PERMIT UNIT REQUIREMENTS

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 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
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. 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
6. 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
7. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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
9. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Produced water shall be piped to S-91 water treatment facilities. [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. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
14. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. 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
17. 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] Federally Enforceable Through Title V Permit
18. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
19. 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
20. 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
21. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-26-4

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) FIXED ROOF SKIM OIL TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '1-26.

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Tanks water draw-offs except for four weir boxes and four bleed boxes shall consist only of closed piping. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only two weir boxes shall be in use at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Produced water shall be piped to S-91 water treatment facilities. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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] Federally Enforceable Through Title V Permit
16. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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] 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 TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-27-3

EXPIRATION DATE: 07/31/2005

SECTION: 20 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE

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. Flare shall be designed to provide enough natural draft air for smokeless combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Hydrogen sulfide content of gas flared shall not exceed 3 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Gas flowrate to flare shall not exceed 300,000 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Flare shall operate with no visible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed the following: PM-10 - 0.03 lbm/hr, NO₂ - 1.75 lbm/hr, VOC - 0.04 lbm/hr, and CO - 0.44 lbm/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
8. A trained observer, as defined in EPA Method 22, shall check visible emissions at least once every two weeks for a period of 15 minutes. If visible emissions are detected at any time during this period, the observation period shall be extended to two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Actual flare emissions shall not exceed 20 tons VOC/year. Process information, including fuel usage data for the flare and process rates for operations controlled by the flare, shall be submitted to the District annually to demonstrate compliance with this requirement. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
12. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946-77, and ASTM D2382-76. [40 CFR 60.18 (f)(3-6)] 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.

13. Air-assisted flares shall be operated with an exit velocity less than V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
14. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
15. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
16. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
17. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
18. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
19. Permittee shall keep accurate records of the amount of daily gas flow to the flare. Such records shall be made readily available for District inspection upon request. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
20. Hydrogen sulfide content of the gas flared shall be determined using CARB Method 15 or EPA Method 11. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Gas flared shall be tested weekly for hydrogen sulfide. If compliance with hydrogen sulfide emission limits has been demonstrated for 8 consecutive weeks, then the gas flared testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-67-1

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

THREE 600 GALLON AND 1,000 GALLON ABOVEGROUND STORAGE TANKS WITH FOUR GASOLINE DISPENSING NOZZLES (INSTALLED PRIOR TO JULY 1, 1975)

PERMIT UNIT REQUIREMENTS

1. The tanks shall be equipped with submerged fill pipes that extend to within six (6) inches of the bottom of the tank. [District Rule 4621, 4.1.2] Federally Enforceable Through Title V Permit
2. Aggregate dispensing throughput shall not exceed 24,000 gallons per calendar year and it shall not exceed 10,000 gallons in any consecutive 30-day period. [District Rule 4622, 4.1] Federally Enforceable Through Title V Permit
3. Permittee shall maintain gasoline throughput records which will allow the gasoline throughput for any 30-day period to be continuously determined. [District Rule 4622, 6.1 and District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. Aboveground storage tank(s) shall be equipped with pressure/vacuum valves set to within 10 percent of the maximum working pressure of the tank. [District Rule 4621; District NSR Rule] 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-1703-76-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1001

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-77-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1002

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-78-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1003

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-79-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1004

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-80-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1008

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-81-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1012

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-82-3

EXPIRATION DATE: 07/31/2005

SECTION: SE14 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1013

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-91-3

EXPIRATION DATE: 07/31/2005

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S165

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-92-3

EXPIRATION DATE: 07/31/2005

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S166

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-93-3

EXPIRATION DATE: 07/31/2005

SECTION: NE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S136

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-94-4

EXPIRATION DATE: 07/31/2005

SECTION: SW06 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,500 GALLON (250 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC6

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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
3. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
4. 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, 6.2] Federally Enforceable Through Title V Permit
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
6. 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
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
9. This tank shall be subject to the requirements of Rule 4623 if the tank loses its exemption under section 4.0 on the date the exemption status is lost. [District Rule 4623, 7.3] Federally Enforceable Through Title V Permit
10. The control requirements of Rule 4623, Section 5.0 do not apply to this source. A permit shield is granted from Rule 4623, Section 5.0 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.

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE, CA
8-1703-94-4: Oct 28 2011 2:59PM - TOMS

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-102-3

EXPIRATION DATE: 07/31/2005

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #101

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-103-3

EXPIRATION DATE: 07/31/2005

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #102

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-104-3

EXPIRATION DATE: 07/31/2005

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #103

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-107-3

EXPIRATION DATE: 07/31/2005

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S156

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-108-3

EXPIRATION DATE: 07/31/2005

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S158

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-109-3

EXPIRATION DATE: 07/31/2005

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON (5,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #50S105

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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**San Joaquin Valley
Air Pollution Control District**

PERMIT UNIT: S-1703-113-3

EXPIRATION DATE: 07/31/2005

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #10S640

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-114-3

EXPIRATION DATE: 07/31/2005

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S157

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-115-3

EXPIRATION DATE: 07/31/2005

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #501

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-116-3

EXPIRATION DATE: 07/31/2005

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #502

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-117-3

EXPIRATION DATE: 07/31/2005

SECTION: SW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #503

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-118-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S129

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-119-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S595

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-120-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S700

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-126-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON (1,000 BBL) OPEN TOP PETROLEUM STORAGE TANK #10S124

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-128-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S125

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-129-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC1

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-130-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #20S150

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-131-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S168

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: MACPHERSON OIL COMPANY
Location: HEAVY OIL CENTRAL STATIONARY SOURCE, CA
6-1703-131-3 : Oct 26 2011 2:50PM - TOMS

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-132-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #ACT

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-133-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S110

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-134-3

EXPIRATION DATE: 07/31/2005

SECTION: 18 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. 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. 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
4. The operator shall maintain monitoring 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
5. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. This requirement does not apply to cyclic wells located on contiguous and adjacent oil production properties with less than 10 cyclic wells owned by or under the control of a company. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
6. For cyclic wells located on properties with less than 10 cyclic wells and owned by a company, the uncontrolled VOC emissions from any well vent or system of well vents connected to a single control device shall be reduced by at least 50 percent. Properties shall include contiguous and adjacent oil production properties owned by or under control of the company. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
7. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
9. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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 and which is prior to any 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
12. 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
13. The control efficiency of the vapor collection and control system designed to control VOC emissions from steam enhanced crude oil production wells 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
14. 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
15. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
16. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. There shall be no more than 3 leaks from the vapor collection and control system including condensate handling, at any one time. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Condensate collection vessel shall be equipped with high efficiency mist eliminator. [District NSR Rule] Federally Enforceable Through Title V Permit
19. All fluids and gas produced from steam drive wells shall be piped to tank battery S-1703-16 thru '26 only. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Well vent gas shall be incinerated in 4.0 MMBtu/hr tank heater boiler and/or tank battery flare S-1703-27. [District NSR Rule] Federally Enforceable Through Title V Permit
21. VOC emission rate shall not exceed 0.77 lb/hr. [District NSR Rule] 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-1703-139-8

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID# 10RM105-U.S.L. LEASE WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-139, '-140, '-170, '-171, AND '-191 VENTING TO TEOR SYSTEM LISTED ON '-143 (U.S.L. LEASE)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of gas 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-140-7

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

252,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID # 6RM107-U.S.L. LEASE VENTING TO VAPOR CONTROL SYSTEM LISTED ON ' -139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-141-3

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON FIXED ROOF WASH TANK ID # 5RM102 - U.S.L. 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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-143-15

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY (TEOR) WELL VENT VAPOR CONTROL SYSTEM SERVING 80 STEAM ENHANCED WELLS AND TANK VAPOR CONTROL SYSTEMS S-1703-139, -144, AND -184 SERVED BY H2S SCRUBBER SYSTEM WITH COMPRESSED VAPOR PIPING TO STEAM GENERATORS S-1703-157, -158, -159, -160, -161, AND -162 FOR INCINERATION OF UNCONDENSED VAPORS OR TO GAS DISPOSAL WELL

PERMIT UNIT REQUIREMENTS

1. The operation shall be equipped with heat exchangers, free water knockouts, gas liquid separators, vapor compressors with electric motors, and compressed vapor piping to any of the following steam generators S-1703-157, -158, -159, -160, -161, or -162. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Noncondensibles shall be incinerated in steam generators S-1703-157, -158, -159, -160, -161, or -162 or injected into DOGGR-approved disposal well. [District NSR Rule] Federally Enforceable Through Title V Permit
3. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended January 15, 1998). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
4. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
5. 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
6. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas 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
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, 5.5.1 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. The annual inspection requirements of Section 5.8.1 through 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
17. 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
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 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.

19. 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
20. 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
21. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.8.5] 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 5.8.6] 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 5.9.1] 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 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
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 5.9.3] Federally Enforceable Through Title V Permit
26. 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
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 5.9.4] 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 4 of Rule 4401. [District Rule 4401 5.9.5] 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 4 of Rule 4401. [District Rule 4401 5.9.6] 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.

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 5.9.7] 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 6.1.1] Federally Enforceable Through Title V Permit
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 6.1.3] Federally Enforceable Through Title V Permit
33. 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
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 6.1.5] 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 calibration shall be maintained. [District Rule 4401 6.1.6] 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 6.1.7] Federally Enforceable Through Title V Permit
37. 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
38. 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
39. 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
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 6.1.11] 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. [District Rule 4401 6.2.1] 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 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
43. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

44. 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
45. 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
46. 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
47. 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
48. 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
49. 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
50. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

51. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-144-7

EXPIRATION DATE: 07/31/2005

SECTION: 18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-240 WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-144, '-145, '-146, '-150, AND '-152 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-143 OR TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162

PERMIT UNIT REQUIREMENTS

1. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 4623]
4. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623]
5. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 4623]
6. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201]

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

8. 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
9. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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]
11. 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]
12. 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]
13. 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]
14. 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]
15. 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]
16. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201]
17. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
18. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
21. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-145-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK T-245 VENTING TO VAPOR CONTROL SYSTEM LISTED ON 144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
3. 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
4. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-146-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL WASH TANK T-110 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-150-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

3,300 BBL FIXED ROOF CRUDE OIL WASH TANK T-220 VENTING TO VAPOR CONTROL SYSTEM LISTED ON ' -144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-152-7

EXPIRATION DATE: 07/31/2005

SECTION: 0SE18 **TOWNSHIP:** 028S **RANGE:** 029E

EQUIPMENT DESCRIPTION:

105,000 GALLON (2500 BBL) FIXED ROOF SLOP TANK T-320A VENTING TO VAPOR CONTROL SYSTEM LISTED ON
'-144

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-156-3

EXPIRATION DATE: 07/31/2005

SECTION: 18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

210,000 GALLON FREE WATER KNOCKOUT TANK 5RM101

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-157-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #610 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184

PERMIT UNIT REQUIREMENTS

1. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
2. Stack O2 shall be maintained between 0.5 and 3.0%. A District approved portable analyzer shall be used to monitor stack O2. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Emission rates shall not exceed any of the following: VOC - 0.003 lb/MMBTU; NOx (as NO2) - 30 ppmv @ 3% O2 or 0.036 lb/MMBTU; CO - 38 ppmv @ 3% O2; or PM10 - 0.006 lb/MMBTU. [District Rules 2201 and 4351] Federally Enforceable Through Title V Permit
4. Fuel gas sulfur content shall not exceed 1 grain of sulfur per 100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall demonstrate compliance with fuel gas sulfur limit by sample analysis of fuel gas monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
8. 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 and 4306]
9. During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.2.1 of District Rule 4306. [District Rule 4306] Federally Enforceable Through Title V Permit
10. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Source testing shall be conducted using the methods and procedures approved by the District. 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
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: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, and 4351] 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 and 4306]
16. The acceptable range of stack O₂ concentration and visible mechanical burner settings shall be established by testing emissions from this unit or other representative units as approved by the District. The acceptable range shall be that for which compliance with applicable NO_x and CO emissions rates have been demonstrated through source testing. [District Rules 4305, 4351] Federally Enforceable Through Title V Permit
17. The stack O₂ concentration measurement and inspection of mechanical settings shall be conducted at least on a weekly basis. [District Rules 4305, 4351] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of the date and time of O₂ measurements and burner adjustments, the measured O₂ concentrations (% by volume), and the observed setting for burner register louvers. The records must also include a description of any corrective action taken to maintain the O₂ concentration and the burner mechanical settings within the acceptable range. These records shall be retained at the premises for a period of no less than two years and shall be made available for District inspection upon request. [District Rules 4305, 4351] Federally Enforceable Through Title V Permit
19. If the O₂ concentration or the burner mechanical setting deviate from the acceptable range, the permittee shall notify the District and return the O₂ concentration or burner mechanical settings to within the acceptable range as soon as possible but no longer than one (1) hour after detection. If the O₂ concentration or the burner settings are not returned to within the acceptable range within one hour, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rule 4305] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (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
22. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
23. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 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.

24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. Annual source testing shall be performed for NO_x (ppmv) according to EPA Method 7E (or ARB Method 100), stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100), and NO_x emission rate (heat input basis) by EPA Method 19. Gaseous fired units demonstrating compliance on 2 consecutive annual tests shall be tested not less than once every 36 months. Annual testing shall resume if any such test fails to show compliance. [District Rule 4305, 6.2.2, 6.2.4-7, & 6.3.1 and 4351, 6.2.2 & 6.2.4-7, & 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rule 4305, 6.3.2 and 4351, 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rule 4305, 6.3.2; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. Nitrogen oxide (NO_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 NO₂/MMBtu of heat input (hhv). [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-158-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #620 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '144, AND '184

PERMIT UNIT REQUIREMENTS

1. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
2. Stack O2 shall be maintained between 0.5 and 3.0%. A District approved portable analyzer shall be used to monitor stack O2. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emission rates shall not exceed any of the following: VOC - 0.003 lb/MMBtu; NOx (as NO2) - 30 ppmv @ 3% O2 or 0.036 lb/MMBtu; CO - 38 ppmv @ 3% O2; or PM10 - 0.006 lb/MMBtu. [District NSR Rule; District Rule 4351, 5.2] Federally Enforceable Through Title V Permit
4. Fuel gas sulfur content shall not exceed 1 grain of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall conduct sample analysis of fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. 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 and 4306] Federally Enforceable Through Title V Permit
9. During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.2.1 of District Rule 4306. [District Rule 4306] Federally Enforceable Through Title V Permit
10. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rule 4305, 6.3; District Rule 4351, 6.3; 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.

11. Source testing shall be conducted by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] 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 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
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: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081; 4305, 6.2; and 4351, 6.2] Federally Enforceable Through Title V Permit
15. The acceptable range of stack O₂ concentration and visible mechanical burner settings shall be established by testing emissions from this unit or other representative units as approved by the District. The acceptable range shall be that for which compliance with applicable NO_x and CO emissions rates have been demonstrated through source testing. [District NSR Rule] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
17. The stack O₂ concentration measurement and inspection of mechanical settings shall be conducted at least on a weekly basis. [District NSR Rule] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of the date and time of O₂ measurements and burner adjustments, the measured O₂ concentrations (% by volume), and the observed setting for burner register louvers. The records must also include a description of any corrective action taken to maintain the O₂ concentration and the burner mechanical settings within the acceptable range. These records shall be retained at the premises and shall be made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
19. If the O₂ concentration or the burner mechanical setting deviate from the acceptable range, the permittee shall notify the District and return the O₂ concentration or burner mechanical settings to within the acceptable range as soon as possible but no longer than one (1) hour after detection. If the O₂ concentration or the burner settings are not returned to within the acceptable range within one hour, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (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
22. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. Annual source testing shall be performed for NO_x (ppmv) according to EPA Method 7E (or ARB Method 100), stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100), and NO_x emission rate (heat input basis) by EPA Method 19. Gaseous fired units demonstrating compliance on 2 consecutive annual tests shall be tested not less than once every 36 months. Annual testing shall resume if any such test fails to show compliance. [District Rule 4305, 6.2.2, 6.2.4-7, & 6.3.1 and 4351, 6.2.2 & 6.2.4-7, & 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rule 4305, 6.3.2 and 4351, 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rule 4305, 6.3.2; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [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.

32. Nitrogen oxide (NO_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 NO₂/MMBtu of heat input (hhv). [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-159-10

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #630 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
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 natural gas-fired unit shall not exceed any of the following limits: 15 ppmvd NOX @ 3% O2 or 0.018 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. 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 and 4306] Federally Enforceable Through Title V Permit
10. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. 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
14. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] 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 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. Permittee shall conduct sample analysis of fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-160-10

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #640 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
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 natural gas-fired unit shall not exceed any of the following limits: 15 ppmvd NOX @ 3% O2 or 0.018 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. 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 and 4306] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. 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
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. Permittee shall conduct sample analysis of fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-161-10

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
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 natural gas-fired unit shall not exceed any of the following limits: 15 ppmvd NOX @ 3% O2 or 0.018 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
6. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. 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
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. Permittee shall conduct sample analysis of fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-162-8

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TANK VAPOR CONTROL SYSTEM GAS-FIRED STEAM GENERATOR #660 WITH COEN QLN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following: VOC - 0.0055 lb/MMBtu; NOx (as NO2) - 13 ppmv @ 3% O2 or 0.0158 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 38 ppmv @ 3% O2; or PM10 - 0.0076 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 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.

10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. 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
14. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] 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 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
25. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-163-3

EXPIRATION DATE: 07/31/2005

SECTION: SW17 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

5,000 BBL FIXED ROOF CRUDE OIL/WASTE WATER STORAGE TANK #50S106

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-164-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

31,500 GALLON/750 BARREL OPEN TOP WASTEWATER TANK [TANK #TOC002]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-165-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

42,000 GALLON/1,000 BBL FIXED ROOF WASTEWATER TANK [TANK #TOC003]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-166-3

EXPIRATION DATE: 07/31/2005

SECTION: NE7 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #ES1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-167-3

EXPIRATION DATE: 07/31/2005

SECTION: SW6 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S105]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-168-3

EXPIRATION DATE: 07/31/2005

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S190]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-169-3

EXPIRATION DATE: 07/31/2005

SECTION: NW29 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BARREL FIXED ROOF BLEED TANK [TANK #J-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-170-7

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

142,800 GALLON/3,400 BBL FIXED ROOF WASTEWATER TANK [TANK #34RM105] VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-171-7

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL FIXED ROOF SKIM TANK [TANK #S201] VENTING TO VAPOR CONTROL SYSTEM LISTED ON '139

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-173-3

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-174-3

EXPIRATION DATE: 07/31/2005

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-2]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-175-3

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK (TANK #STA6)

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-176-3

EXPIRATION DATE: 07/31/2005

SECTION: SE20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA7]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-177-3

EXPIRATION DATE: 07/31/2005

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-1]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-178-3

EXPIRATION DATE: 07/31/2005

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-2]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

**San Joaquin Valley
Air Pollution Control District**

PERMIT UNIT: S-1703-179-4

EXPIRATION DATE: 07/31/2005

SECTION: NE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

126,000 GALLON/3,000 BBL OPEN TOP WASTEWATER TANK [TANK #3RM104]

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. 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 40 CFR 60.113 and section 6.2 of District Rule 4623 (amended 5/19/05). 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, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall keep accurate records of types, storage temperature, and TVP of liquids stored to verify continued exemption from District Rule 4623 (amended 5/19/05). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-180-13

EXPIRATION DATE: 07/31/2005

SECTION: NE16 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR #670 WITH COEN MODEL QLN BURNER AND FLUE GAS RECIRCULATION SYSTEM (C-5, DIS # 27554-74)

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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 I or 20% opacity. [District Rule 4101] 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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
6. Unit shall be fired on PUC-regulated quality natural gas only. No TEOR or TVR gas shall be combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: VOC - 0.003 lb/MMBtu; NOx (as NO₂) - 13 ppmv @ 3% O₂ or 0.0158 lb/MMBtu; SO_x - 0.00285 lb/MMBtu; CO - 41 ppmv @ 3% O₂; or PM₁₀ - 0.009 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
10. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_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_x or CO emissions 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 supercede a more stringent NSR or PSD permit testing requirement). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. 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 4305 and 4306] Federally Enforceable Through Title V Permit
13. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
14. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] 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 and 4306] 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. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 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.

24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
32. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [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.

33. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] 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-1703-181-0

EXPIRATION DATE: 07/31/2005

SECTION: SW09 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR W/LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71)

PERMIT UNIT REQUIREMENTS

1. Unit shall be exclusively natural gas fired and have no provisions for oil firing. [District Rule 2201]
2. Steam generator firebox convection section and all flue gas ductwork shall be maintained to minimize emissions to the atmosphere. [District NSR Rule]
3. Emission factors for this unit shall not exceed any of the following: PM-10: 0.043 lb/MMBTU, SO_x (as SO₂): 0.041 lb/MMBTU, NO_x (as NO₂): 0.061 lb/MMBTU, VOC: 0.007 lb/MMBTU, or CO: 0.023 lb/MMBTU. [District NSR Rule]
4. Compliance source testing for NO_x, CO and fuel gas sulfur content shall be conducted at least once every 12 months. [District Rule 4305]
5. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081]
6. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 4305, 4351]
7. Permittee shall maintain accurate daily records of the following: fuel type and amount used. [District Rule 2201]
8. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]
9. Formerly S-1109-34.

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-184-3

EXPIRATION DATE: 07/31/2005

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

10,000 BARREL FREE WATER KNOCKOUT TANK T-1210 SERVED BY THE VAPOR CONTROL SYSTEM SHARED WITH S-1703-186 AND -187, INCLUDING HEAT EXCHANGERS, FREE WATER KNOCKOUTS, GAS LIQUID SEPARATORS, VAPOR COMPRESSORS WITH ELECTRIC MOTORS, AND COMPRESSED VAPOR PIPING TO ANY OF THE FOLLOWING STEAM GENERATORS: S-1703-157, -158, -159, -160, -161, AND -162

PERMIT UNIT REQUIREMENTS

1. The tank vapors may be introduced into TEOR system S-1703-143 at either the main trunk line, or immediately upstream of the H2S scrubber system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained to prevent leaks. The vapors shall be incinerated to reduce the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4 of Rule 4623 in any of the following steam generators: S-1703-157, -158, -159, -160, -161, or -162; or vapors shall be injected into DOGGR approved wells listed on permit S-1703-143. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Before disposal of VOC vapors by well injection, the applicant shall obtain written notification from DOGGR that the wells are approvable for injection. [District Rule 2201]
4. VOCs collected from tank shall vent only to vapor control system listed on this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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
6. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
10. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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]
12. 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]
13. Operator shall conduct quarterly gas sampling after TVR compressor (prior to connection to any other vapor control system) and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not be within 48 hours after routine maintenance or repair. [District Rule 2201]
14. VOC content of gas shall be measured using ASTM D-1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
15. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 4623] Federally Enforceable Through Title V Permit
16. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 4623]
17. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 4623] Federally Enforceable Through Title V Permit
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-186-4

EXPIRATION DATE: 07/31/2005

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

84,000 GALLON (2,000 BBL) STOCK TANK T-1230 SERVED BY THE VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-187-2

EXPIRATION DATE: 07/31/2005

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF SLOP OIL TANK #T-1260 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1703-191-1

EXPIRATION DATE: 07/31/2005

SECTION: NW20 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL TEST TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1703-139
(U.S.L. LEASE)

PERMIT UNIT REQUIREMENTS

1. 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
2. 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
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. 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
5. Operator shall conduct quarterly sampling from the tank vapor control system's common header to the vapor control system 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. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. All vessel and vapor control system piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated to methane, to ensure compliance with the provisions of this permit. If any of the vessel components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no vessel components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 ft above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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
12. 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] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
15. 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
16. The permittee shall keep accurate records of each organic liquid stored in the tank including TVP and API gravity. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit

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

ATTACHMENT C

Authority to Construct Permits to be Converted



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-157-11

ISSUANCE DATE: 08/17/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE12 **TOWNSHIP:** 28S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #610 WITH COEN MODEL QLN BURNER AND FGR FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144 OR '-184; REPLACE EXISTING BURNER WITH GIDEON MGW-63V2 LOW NOX GAS BURNER OR EQUIVALENT AND LOWER NOX EMISSIONS TO 7 PPM @3% O2 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 NSR Rule] 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 permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] 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-1703-157-11; Aug 17 2009 1:25PM - 00000000 - Joint Inspection NOT Required

5. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351, 5.6.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following: NO_x (as NO₂) - 7 ppmv @ 3% O₂ or 0.008 lb/MMBtu; CO - 38 ppmv @ 3% O₂; or PM₁₀ - 0.006 lb/MMBtu; VOC - 0.003 lb/MMBtu. [District Rules 4320 and 4351, 5.2] Federally Enforceable Through Title V Permit
7. Fuel gas sulfur content shall not exceed 1 grain of sulfur per 100 dscf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. Source testing to measure NO_x and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit
11. Source testing to measure NO_x 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, 4306 and 4320] 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 NO_x and CO source testing requirement. [District Rule 4305, 6.3; District Rule 4351, 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted 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 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
15. 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
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: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081; 4305, 6.2; 4320, and 4351, 6.2] Federally Enforceable Through Title V Permit
18. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. If either the NO_x 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, 4306 and 4320] 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, 4306 and 4320] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
22. Permittee shall maintain records of noncertified (non-PUC/FERC regulated) fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
23. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (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
24. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

28. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
30. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rule 4305, 6.3.2 and 4351, 6.3; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rule 4305, 6.3.2; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
33. Nitrogen oxide (NO_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 NO₂/MMBtu of heat input (hhv). [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
34. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 AND 4320] Federally Enforceable Through Title V Permit



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-158-10

ISSUANCE DATE: 08/17/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #620 WITH COEN MODEL QLN BURNER AND FGR FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144 OR -184; REPLACE EXISTING BURNER WITH GIDEON MGW-63V2 LOW NOX GAS BURNER OR EQUIVALENT AND LOWER NOX EMISSIONS TO 7 PPM @3% O2 FOR RULE 4320 COMPLIANCE AND REVISE CONDITION TO REQUIRE MONTHLY MONITORING OF ONLY THE NONCERTIFIED FUELS

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]
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 permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 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-1703-158-10; Aug 17 2009 1:27PM - GOUKHO ; JUNE INSPECTION NOT REQUIRED

5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
7. Fuel gas sulfur content shall not exceed 2.0 grains of sulfur per 100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed any of the following: NO_x (as NO₂) - 7 ppmv @ 3% O₂ or 0.008 lb/MMBtu; CO - 38 ppmv @ 3% O₂; or SO_x (as SO₂) - 0.0057 lb/MMBtu; PM₁₀ - 0.0076 lb/MMBtu; or VOC - 0.003 lb/MMBtu. [District Rules 4320 and 4351, 5.2] Federally Enforceable Through Title V Permit
9. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
10. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District Rule 2201]
11. Source testing to measure NO_x and CO emissions from this unit shall be conducted within 60 days of initial operation under this ATC. [District Rules 2201, 4305, 4306 and 4320] 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. Source testing to measure natural gas-combustion NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
14. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of Rule 4320. [District Rules 4305, 4306 and 4320] 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: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
18. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_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_x or CO emissions 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 supercede a more stringent NSR or PSD permit testing requirement). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. The following conditions must be met for representative unit(s) to be used to test for NO_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 4305 and 4306] Federally Enforceable Through Title V Permit
20. All units in a group for which representative units are source tested for NO_x and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. All units in a group for which representative units are source tested to for NO_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 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 and 4306] Federally Enforceable Through Title V Permit
22. The number of representative units source tested for NO_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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. 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 2201; 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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. Permittee shall maintain records of fuel gas sulfur content. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, 4306 and 4320] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-159-12

ISSUANCE DATE: 08/17/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #630 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184. REPLACE EXISTING BURNER WITH GIDEON MGW-63V2 LOW NOX GAS BURNER OR EQUIVALENT AND LOWER NOX EMISSIONS TO 7 PPM @3% O2 FOR RULE 4320 COMPLIANCE AND REVISE CONDITION TO REQUIRE MONTHLY MONITORING OF ONLY THE NONCERTIFIED FUELS

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 NSR Rule] 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 permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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 natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOX @ 3% O2 or 0.008 lb-NOX/MMBtu; 0.00285 lb-SOX/MMBtu; 0.006 lb-PM10/MMBtu; 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] 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, 4306 and 4320] Federally Enforceable Through Title V Permit
11. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
12. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] 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 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
16. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial operation under this ATC. [District Rules 2201, 4305, 4306 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, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
21. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
25. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
27. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
28. 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

CONDITIONS CONTINUE ON NEXT PAGE

29. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-160-12

ISSUANCE DATE: 08/17/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #640 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184; REPLACE EXISTING BURNER WITH GIDEON MGW-63V2 LOW NOX GAS BURNER OR EQUIVALENT AND LOWER NOX EMISSIONS TO 7 PPM @3% O2 FOR RULE 4320 COMPLIANCE AND REVISE CONDITION TO REQUIRE MONTHLY MONITORING OF ONLY THE NONCERTIFIED FUELS

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 NSR Rule] 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 permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment [District Rule 2010] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters [District Rule 2010] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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 natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOX @ 3% O2 or 0.008 lb-NOX/MMBtu, 0.00285 lb-SOX/MMBtu, 0.006 lb-PM10/MMBtu, 38 ppmvd CO @ 3% O2 or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Fuel gas sulfur content shall not exceed 1 grains of sulfur per 100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
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. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] 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, 4306 and 4320] Federally Enforceable Through Title V Permit
11. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
12. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] 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, 4306 and 4320] Federally Enforceable Through Title V Permit
15. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial operation under this ATC. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
16. 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
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 fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
21. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
25. Permittee shall conduct sample analysis of noncertified (non-PUC/FERC regulated) fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
27. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
28. 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

CONDITIONS CONTINUE ON NEXT PAGE

29. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 records of fuel gas sulfur content. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-181-9

ISSUANCE DATE: 08/17/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SW09 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR W/O-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71); LOWER NOX EMISSIONS TO 7 PPM @ 3% O2 FOR RULE 4320

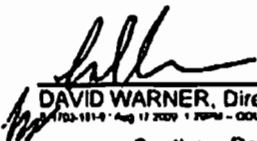
CONDITIONS

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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following: NOx (as NO2) - 7 ppmv @ 3% O2 or 0.008 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 41 ppmv @ 3% O2; PM10 - 0.0076 lb/MMBtu; or VOC - 0.007 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] 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.

Sayed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

7. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
10. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
11. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. 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
13. Source testing to measure NO_x and CO emissions from this unit shall be conducted within 60 days of initial operation under this ATC. [District Rules 2201 and 4320] 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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (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 fuel gas sulfur content - ASTM D3246 or double GC for H₂S and mercaptans. [District Rules 1081, 4305, 4320 and 4351] Federally Enforceable Through Title V Permit
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
23. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NO_x, 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, 4306 and 4320] Federally Enforceable Through Title V Permit
25. If either the NO_x 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, 4306 and 4320] Federally Enforceable Through Title V Permit
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
28. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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. Formerly S-1109-31.



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-161-12

ISSUANCE DATE: 11/05/2007

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 TOWNSHIP: 28S RANGE: 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184; LOWER NOX EMISSIONS LIMIT FROM 15 PPMV TO 13 PPMV @ 3% O₂

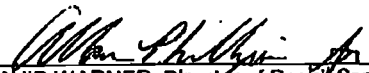
CONDITIONS

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. This Authority to Construct (ATC) shall be implemented concurrently with or subsequent to ATC S-1703-161-10. [District Rule 2201]
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 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-1703-161-12; Nov 9 2007 2:31PM - TRANSMIT : Joint Inspection NOT Required

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370 • (661) 326-6900 • Fax (661) 326-6885

7. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 13 ppmvd NO_x @ 3% O₂ or 0.0158 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.006 lb-PM₁₀/MMBtu, 38 ppmvd CO @ 3% O₂ or 0.028 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4301, 4305, and 4306] Federally Enforceable Through Title V Permit
8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
10. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
11. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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

CONDITIONS CONTINUE ON NEXT PAGE

20. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
21. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
25. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] Federally Enforceable Through Title V Permit



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-162-7

ISSUANCE DATE: 11/05/2007

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 TOWNSHIP: 28S RANGE: 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #860 WITH COEN QLN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION: LOWER NOX EMISSIONS UNIT FROM 15 PPM TO 13 PPM @ 3% O2

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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: VOC - 0.003 lb/MMBtu; NOx (as NO2) - 13 ppmv @ 3% O2 or 0.0158 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 38 ppmv @ 3% O2; or PM10 - 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 326-8900 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-1103-101-7 - Nov 9 2007 2:35PM - RANIRE ZH : Joint Inspection NOT Required

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370 • (861) 326-8900 • Fax (861) 326-6986

8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
10. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
11. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
12. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] 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. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
25. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] Federally Enforceable Through Title V Permit



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-180-8

ISSUANCE DATE: 11/05/2007

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR #670 WITH QLN ULTRA LOW NOX BURNER WITH FGR (C-5, DIS# 27554-74); LOWER NOX EMISSIONS LIMIT FROM 15 PPM TO 13 PPM @ 3% O2

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. This Authority to Construct (ATC) shall be implemented concurrently with or subsequent to ATC S-1703-180-7. [District Rule 2201]
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
8. Unit shall be fired on PUC-regulated quality natural gas only. No TEOR or TVR gas may be combusted. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 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-1703-180-8; Nov 5 2007 2:10PM - RAMSREZH : Air Impairment MOI Required

9. Emission rates shall not exceed any of the following: VOC - 0.003 lb/MMBtu; NOx (as NO₂) - 13 ppmv @ 3% O₂ or 0.0158 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 38 ppmv @ 3% O₂; or PM₁₀ - 0.009 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
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 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
12. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
13. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
14. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] 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 and 4306] Federally Enforceable Through Title V Permit
16. 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
17. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] 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

CONDITIONS CONTINUE ON NEXT PAGE

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, 9.4.2 and 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
27. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
28. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
32. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
33. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] Federally Enforceable Through Title V Permit



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-181-7

ISSUANCE DATE: 11/05/2007

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
 BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
 CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR #680 WITH LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71); LOWER NOX EMISSIONS LIMIT FROM 15 PPM TO 12 PPM @ 3% O2, REVISE PERMIT TO REFLECT THAT UNIT FIRES EXCLUSIVELY ON PUC-QUALITY NATURAL GAS

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. This Authority to Construct (ATC) shall be implemented concurrently with or subsequent to ATC S-1703-181-5. [District Rule 2201]
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 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 / APCD


 DAVID WARNER, Director of Permit Services
S-1703-181-7; Nov 5 2007 2:30PM - RAMREZM - Joint Inspection NOT Required

8. Emission rates shall not exceed any of the following: VOC - 0.007 lb/MMBtu; NOx (as NO2) - 12 ppmv @ 3% O2 or 0.0146 lb/MMBtu; SOx - 0.00285 lb/MMBtu; CO - 41 ppmv @ 3% O2; or PM10 - 0.0076 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
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 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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 and 4306] Federally Enforceable Through Title V Permit
11. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx limits 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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3] Federally Enforceable Through Title V Permit
12. The following conditions must be met for representative unit(s) used to demonstrate compliance for NOx limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
13. The number of representative units source tested to demonstrate compliance for NOx limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2] 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 and 4306] 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. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. 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

CONDITIONS CONTINUE ON NEXT PAGE

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, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
26. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
28. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
31. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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, and 4306] Federally Enforceable Through Title V Permit
34. Formerly S-1109-31.



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-161-14

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184: RETROFIT WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER

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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
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

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-1703-161-14 May 4 2009 1:58PM -- RICHARDA [Signature] Required

6. The permittee shall notify the District of the approved burner to be installed prior to implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0109 lb/MMBtu or 9 ppmv @ 3% O₂, Sox (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.006 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of startup and 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, 4306, and 4320] Federally Enforceable Through Title V Permit
13. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
14. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
15. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] 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, 4306, and 4320] 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. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
29. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
31. 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
32. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume 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
33. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
35. 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
36. ATC S-1703-161-12 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-161-15

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-154 AND S-1703-143: LOWER NOX LIMIT TO 7 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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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 I 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

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.

Sayed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1703-161-15 May 4 2009 1:10PM - B C/FAR24 - permit@apcd.org

7. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0085 lb/MMBtu or 7 ppmv @ 3% O₂, Sox (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.006 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
8. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
9. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
10. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
11. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
12. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] 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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H₂S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
23. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
25. If either the NO_x 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, 4306, and 4320] Federally Enforceable Through Title V Permit
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume and the measured NO_x 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
28. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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. ATC S-1703-161-15 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-162-10

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 TOWNSHIP: 28S RANGE: 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #660 WITH COEN QLN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION, FIRING TEOR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, -144, AND -184; RETROFIT WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER

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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. The permittee shall notify the District of the approved burner to be installed prior to implementation of this ATC. [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

7. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
11. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0109 lb/MMBtu or 9 ppmv @ 3% O₂, Sox (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.0076 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
13. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
14. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
15. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
16. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] 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

CONDITIONS CONTINUE ON NEXT PAGE

19. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H₂S and mercaptans performed in a laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
27. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
28. If either the NO_x 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, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 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 by volume 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. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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. ATC S-1703-162-8 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-162-11

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SE18 **TOWNSHIP:** 28S **RANGE:** 29E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER WITH FLUE GAS RECIRCULATION: LOWER NOX LIMIT TO 7 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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6500 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

7. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0085 lb/MMBtu or 7 ppmv @ 3% O₂, SO_x (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.0076 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
11. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
12. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
13. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] 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, 4306, and 4320] 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 following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H₂S and mercaptans performed in a laboratory, fuel gas hlv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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

CONDITIONS CONTINUE ON NEXT PAGE

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, 9.4.2 and Rule 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
24. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
25. If either the NO_x 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, 4306, and 4320] Federally Enforceable Through Title V Permit
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

27. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume 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
28. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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. ATC S-1703-162-10 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-180-10

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: NE16 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR #670 WITH ULN ULTRA LOW NOX BURNER WITH FGR (C-5, DIS# 27554-74); RETROFIT WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER

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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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. The permittee shall notify the District of the approved burner to be installed prior to implementation of this ATC. [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

7. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this ATC. Approval of the equivalent equipment shall be made in writing and only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the authorized equipment. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emissions rates, equipment drawing(s) and operational characteristics/parameters. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
11. Unit shall be fired on PUC-regulated quality natural gas only. No TEOR or TVR gas may be combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0109 lb/MMBtu or 9 ppmv @ 3% O₂, SO_x (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.009 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
13. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
14. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
15. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
16. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
17. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] 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

CONDITIONS CONTINUE ON NEXT PAGE

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
24. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
26. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
28. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
29. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
31. 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
32. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O₂ measurements, (2) the O₂ concentration in percent by volume 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
33. Permittee shall maintain records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
35. 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
36. ATC S-1703-180-8 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-180-11

ISSUANCE DATE: 05/04/2009

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY
MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: NE16 **TOWNSHIP:** 27S **RANGE:** 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR WITH GIDEON MGW-63V2 ULTRA LOW NOX OR EQUIVALENT BURNER WITH FGR (C-5, DIS# 27554-74); LOWER NOX LIMIT TO 7 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 NSR Rule] 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. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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

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.

Sayed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-1703-180-11 May 4 2009 1:50 PM - BAKERSFIELD - SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

7. Burner shall be equipped with fuel gas volume flowmeter (a master meter for a group of generators is acceptable upon District approval). [District Rule 4351] Federally Enforceable Through Title V Permit
8. Unit shall be fired on PUC-regulated quality natural gas only. No TEOR or TVR gas may be combusted. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emission rates shall not exceed any of the following: NO_x (as NO₂): 0.0085 lb/MMBtu or 7 ppmv @ 3% O₂, SO_x (as SO₂): 0.00285 lb/MMBtu, PM₁₀: 0.009 lb/MMBtu, CO: 0.0281 lb/MMBtu or 38 ppmv @ 3% O₂, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
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 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Test results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO_x limits 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_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. [District Rules 2520, 9.4, 4305, 6.3.2, 4306, 6.3.2 and 4351, 6.3, and 4320] Federally Enforceable Through Title V Permit
13. The following conditions must be met for representative unit(s) used to demonstrate compliance for NO_x limits for a group of units: 1) all units are initially source tested and emissions from all units in group are similar, 2) all units in group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit
14. The number of representative units source tested to demonstrate compliance for NO_x limits 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 when 3 source test cycles have been completed, all units in the entire group will have been tested. [District Rules 2520, 9.4.2, 4305, 6.3.2, and 4306, 6.3.2, and 4320] 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, 4306, and 4320] Federally Enforceable Through Title V Permit
16. 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
17. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H₂S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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

CONDITIONS CONTINUE ON NEXT PAGE

20. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
21. 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 monthly. If a monthly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
24. 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 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
25. Permittee shall conduct sample analysis of noncertified gaseous fuel gas monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable analyzer 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, 4306, and 4320] Federally Enforceable Through Title V Permit
27. If either the NO_x 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, 4306, and 4320] Federally Enforceable Through Title V Permit
28. 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

CONDITIONS CONTINUE ON NEXT PAGE

29. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume 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 records of sulfur content of noncertified gaseous fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results used 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, 9.4.2 and 40 CFR 60.48c(g)] 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. ATC S-1703-180-10 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]



San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1703-181-5

ISSUANCE DATE: 09/28/2006

LEGAL OWNER OR OPERATOR: MACPHERSON OIL COMPANY

MAILING ADDRESS: PO BOX 5368
BAKERSFIELD, CA 93388

LOCATION: HEAVY OIL CENTRAL STATIONARY SOURCE
CA

SECTION: SW09 TOWNSHIP: 27S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR W/LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71): REPLACE LOW NOX BURNER WITH QLN LOW NOX BURNER WITH FGR FOR RULE 4305 AND 4306 COMPLIANCE AND TRANSFER OF LOCATION TO SE/4 SEC 18, T28S, R29E FROM SW/4 SEC 9, T27S, R28E

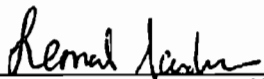
CONDITIONS

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 air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. The FGR system need not be used if compliance with the emission limits in this permit is demonstrated through source testing without the use of FGR. [District Rule 2201]
4. Emission factors for this unit shall not exceed any of the following: PM10: 0.043 lb/MMBTU, SO_x (as SO₂): 0.041 lb/MMBTU, NO_x (as NO₂): 0.018 lb/MMBTU or 15 ppmvd @ 3% O₂, VOC: 0.007 lb/MMBTU, or CO: 41 ppmvd @ 3% O₂. [District Rules 2201, 4305, and 4306]
5. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
6. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 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.

Sayed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
S-1703-181-5: Sep 28 2006 12:40PM - DAV/DSCS : John Inspector NOT Required

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370 • (661) 326-6900 • Fax (661) 326-6985

7. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas 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 and 4306]
8. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306]
9. Fuel gas/casing gas sample collection and analysis and mass balance calculations to demonstrate compliance with SO_x emission limit shall be conducted within 60 days of initial operation and annually thereafter. [District Rule 2201]
10. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
11. 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]
12. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
13. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
15. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
16. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]
17. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306]
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 and 4306]
19. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306]
20. Formerly S-1109-31.
21. ATCs S-1703-181-1 and S-181-3 shall be canceled upon implementation of this ATC. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

22. ATC S-1703-181-2 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]

ATTACHMENT D

Detailed Facility List

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

MACPHERSON OIL COMPANY HEAVY OIL CENTRAL STATIONARY SOURCE CA	FAC # STATUS: TELEPHONE:	S 1703 A 66139332046613	TYPE: TOXIC ID:	Title V 50141	EXPIRE ON: AREA: INSP. DATE:	07/31/2005 101 / 318 01/12
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-16-6	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-17-4	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26.
S-1703-18-4	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '-26.
S-1703-19-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-20-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-21-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-22-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-23-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-24-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-25-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (2,000 BBL) FIXED ROOF WASTE WATER TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '-26.
S-1703-26-4	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) FIXED ROOF SKIM OIL TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '-26.
S-1703-27-3	10,000,000 BTU/HR	3020-02 G	1	815.00	815.00	A	10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE
S-1703-67-1	4 NOZZLES	3020-11 A	4	34.00	136.00	A	THREE 600 GALLON AND 1,000 GALLON ABOVEGROUND STORAGE TANKS WITH FOUR GASOLINE DISPENSING NOZZLES (INSTALLED PRIOR TO JULY 1, 1975)
S-1703-76-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1001

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-77-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1002
S-1703-78-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1003
S-1703-79-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1004
S-1703-80-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1008
S-1703-81-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1012
S-1703-82-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1013
S-1703-91-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S165
S-1703-92-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S166
S-1703-93-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S136
S-1703-94-4	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON (250 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC6
S-1703-102-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #101
S-1703-103-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #102
S-1703-104-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #103
S-1703-107-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S156
S-1703-108-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S158
S-1703-109-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #50S105
S-1703-113-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #10S640
S-1703-114-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S157
S-1703-115-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #501
S-1703-116-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #502

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-117-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #503
S-1703-118-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S129
S-1703-119-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S595
S-1703-120-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S700
S-1703-126-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) OPEN TOP PETROLEUM STORAGE TANK #10S124
S-1703-128-3	63,000 gallons	3020-05 D	1	185.00	185.00	A	63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S125
S-1703-129-3	63,000 gallons	3020-05 D	1	185.00	185.00	A	63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC1
S-1703-130-3	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #20S150
S-1703-131-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S168
S-1703-132-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #ACT
S-1703-133-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S110
S-1703-134-3	TEOR SYSTEM (6 WELLS)	3020-09 A	6	9.34	56.04	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE
S-1703-139-8	420,000 gallon	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID# 10RM105-U.S.L. LEASE WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-139, '-140, '-170, '-171, AND '-191 VENTING TO TEOR SYSTEM LISTED ON '-143 (U.S.L. LEASE)
S-1703-140-7	252,000 gallons	3020-05 E	1	246.00	246.00	A	252,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID # 6RM107-U.S.L. LEASE VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-139
S-1703-141-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF WASH TANK ID # 5RM102 - U.S.L. LEASE
S-1703-143-15	80 wells	3020-09 A	80	9.34	747.20	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) WELL VENT VAPOR CONTROL SYSTEM SERVING 80 STEAM ENHANCED WELLS AND TANK VAPOR CONTROL SYSTEMS S-1703-139, -144, AND -184 SERVED BY H2S SCRUBBER SYSTEM WITH COMPRESSED VAPOR PIPING TO STEAM GENERATORS S-1703-157, -158, -159, -160, -161, AND -162 FOR INCINERATION OF UNCONDENSED VAPORS OR TO GAS DISPOSAL WELL

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-144-7	84,000 gallon	3020-05 D	1	185.00	185.00	A	84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-240 WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-144, '-145, '-146, '-150, AND '-152 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-143 OR TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162
S-1703-145-8	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK T-245 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-146-8	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL WASH TANK T-110 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-150-8	138,600 gallons	3020-05 E	1	246.00	246.00	A	3,300 BBL FIXED ROOF CRUDE OIL WASH TANK T-220 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-152-7	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2500 BBL) FIXED ROOF SLOP TANK T-320A VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-156-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON FREE WATER KNOCKOUT TANK 5RM101
S-1703-157-8	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #610 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-158-8	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #620 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-159-10	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #630 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-160-10	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #640 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-161-10	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-162-8	62,500 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL/TEOR/TANK VAPOR CONTROL SYSTEM GAS-FIRED STEAM GENERATOR #660 WITH COEN QLN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION
S-1703-163-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	5,000 BBL FIXED ROOF CRUDE OIL/WASTE WATER STORAGE TANK #50S106
S-1703-164-3	31,500 gallons	3020-05 C	1	135.00	135.00	A	31,500 GALLON/750 BARREL OPEN TOP WASTEWATER TANK [TANK #TOC002]

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-165-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON/1,000 BBL FIXED ROOF WASTEWATER TANK [TANK #TOC003]
S-1703-166-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #ES1]
S-1703-167-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S105]
S-1703-168-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S190]
S-1703-169-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BARREL FIXED ROOF BLEED TANK [TANK #J-1]
S-1703-170-7	142,000 gallons	3020-05 E	1	246.00	246.00	A	142,800 GALLON/3,400 BBL FIXED ROOF WASTEWATER TANK [TANK #34RM105] VENTING TO VAPOR CONTROL SYSTEM LISTED ON -139
S-1703-171-7	4200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL FIXED ROOF SKIM TANK [TANK #S201] VENTING TO VAPOR CONTROL SYSTEM LISTED ON -139
S-1703-173-3	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-1]
S-1703-174-3	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-2]
S-1703-175-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA6]
S-1703-176-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA7]
S-1703-177-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-1]
S-1703-178-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-2]
S-1703-179-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON/3,000 BBL OPEN TOP WASTEWATER TANK [TANK #3RM104]
S-1703-180-13	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR #670 WITH COEN MODEL QLN BURNER AND FLUE GAS RECIRCULATION SYSTEM (C-5, DIS # 27554-74)
S-1703-181-0	62.5 MMBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR W/L0-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71)
S-1703-184-3	420,000 gallon	3020-05 E	1	246.00	246.00	A	10,000 BARREL FREE WATER KNOCKOUT TANK T-1210 SERVED BY THE VAPOR CONTROL SYSTEM SHARED WITH S-1703-186 AND -187, INCLUDING HEAT EXCHANGERS, FREE WATER KNOCKOUTS, GAS LIQUID SEPARATORS, VAPOR COMPRESSORS WITH ELECTRIC MOTORS, AND COMPRESSED VAPOR PIPING TO ANY OF THE FOLLOWING STEAM GENERATORS: S-1703-157, -158, -159, -160, -161, AND -162
S-1703-186-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) STOCK TANK T-1230 SERVED BY THE VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184
S-1703-187-2	21,000 gallons	3020-05 B	1	93.00	93.00	A	500 BBL FIXED ROOF SLOP OIL TANK #T-1260 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-191-1	21,000 gallons	3020-05 B	1	93.00	93.00	A	500 BBL FIXED ROOF CRUDE OIL TEST TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1703-139 (U.S.L. LEASE)

Number of Facilities Reported: 1

ATTACHMENT E

Rule 4311, 4306, 4601 Stringency Analysis

Comparison of the latest amended version (amended June 18, 2009) of District Rule 4311 and the current SIP approved version, adopted June 20, 2002

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
APPLICABILITY		
This rule is applicable to operations involving the use of flares.	X	X
DEFINITIONS		
Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.	X	X
Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).		X
Air Resources Board (ARB): as defined in Rule 1020 (Definitions).		X
British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59° F to 60° F at one atmosphere.		X
Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.		X
Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface inspiring air into the gas to promote combustion.		X
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable event beyond the control of the operator. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.	X	
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.		X
Enclosed Flare: a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
wide range of flow rates.		
EPA: United States Environmental Protection Agency.		X
Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.		X
Flare: a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.	X	X
Flare Event: any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the APCO in the Flare Monitoring and Recording Plan. For a flare event that continues for more than one calendar day, each calendar day or venting of gases shall constitute a separate flare event.		X
Flare Gas: gas burned in a flare.	X	X
Flare Minimization Plan (FMP): a document intended to meet the requirements of Section 6.5 of this Rule.		X
Flare Monitoring System: all flare monitoring and recording equipment used for the determination of flare operating parameters. Flare monitoring and recording equipment includes, but is not limited to, sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, and video monitoring equipment and video recording equipment.		X
Flexigas: a low BTU fuel gas produced by gasifying coke produced in a fluid-bed Coker. Due to the air used in the gasifying process, Flexigas is approximately 50% nitrogen.		X
Gaseous Fuel: any gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.	X	X
Major Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).	X	
MMBtu: million British thermal units.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares, that by design, provide excess air at the flare tip.	X	X
Nox: any nitrogen oxide compounds	X	X
Open Flare: a vertically or horizontally oriented open pipe flare from which gases are released into the air before combustion is commenced.	X	X
Operator: includes, but not limited to, any person who owns, leases, supervises, or operates a facility.		X
Petroleum Refinery: a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining. For the purpose of this rule, all portions of the petroleum refining operation, including those at non-contiguous locations operating flares, shall be considered as one petroleum refinery.		X
Pilot: an auxiliary burner used to ignite the vent gas routed to a flare.		X
Pilot Gas: the gas used to maintain the presence of a flame for ignition of vent gases.		X
<p>Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. The operation of a flare for the purpose of performing equipment maintenance provided it does not exceed 200 hours per calendar year, or during compliance source testing or visible emission inspections is not considered planned flaring. Planned flaring includes, but is not limited to, the following flaring activities:</p> <ul style="list-style-type: none"> Oil or gas well tests, well related work, tests ordered by a regulatory agency. Equipment depressurization for maintenance purposes. Equipment start-up or shutdown. Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists. Flaring of off-specification gas (i.e. non PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency. 	X	
Planned Flaring: a flaring operation that constitutes a		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following flaring activities:</p> <p>Oil or gas well tests, well related work, tests ordered by a regulatory agency.</p> <p>Equipment depressurization for maintenance purposes.</p> <p>Equipment start-up or shutdown.</p> <p>Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.</p> <p>Flaring of off-specification gas (i.e. non-PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.</p> <p>The operation of a flare for the purpose of performing equipment maintenance.</p>		
<p>Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.</p>		X
<p>Public Utilities Commission (PUC) Quality Gas: any gaseous fuel, gas containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.</p>	X	X
<p>Purge Gas: Nitrogen, carbon dioxide, liquefied petroleum gas, or natural gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide sufficient exit velocity to prevent any regressive flame travel back into the flare header.</p>	X	X
<p>Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.</p>		X
<p>Reportable Flaring Event: any flaring where more than 500,000 standard cubic feet of vent gas is flared per calendar day, or where sulfur oxide emissions are greater than 500 pounds per calendar day. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 6.8 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 6.8, a reportable flaring event ends when the rate of flow of vent gas falls below 0.12 feet per second.</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Representative Sample: a sample of vent gas collected from the location as approved for flare monitoring and analyzed utilizing test methods specified in Section 6.3.4.		X
Shutdown: the procedure by which the operation of a process unit or piece of equipment is stopped due to the end of a production run, or for the purpose of performing maintenance, repair and replacement of equipment. Stoppage caused by frequent breakdown due to poor maintenance or operator error shall not be deemed a shutdown.		X
Startup: the procedure by which a process unit or piece of equipment achieves normal operational status, as indicated by such parameters as temperature, pressure, feed rate and product quality.		X
Steam-Assisted Flare: a combustion device where steam is injected into the combustion zone to promote turbulence for the mixing of the combustion air before it is introduced to the flame.		X
Thermal oxidizer: an enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.		X
Total Organic Gases (TOG): all hydrocarbon compounds containing hydrogen and carbon with or without other chemical elements.	X	X
Turnaround: a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair, replacement of equipment or installation of new equipment.		X
Vent Gas: any gas directed into a flare, excluding assisting air or steam, flare pilot gas, and any continuous purge gases.		X
Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).	X	X
Water Seal: a liquid barrier, or seal, to prevent the passage of gas. Water seals provide a positive means of flash-back prevention in addition to enabling the upstream flare system header to operate at a slight positive pressure at all times.		X
EXEMPTIONS		
Flares operated in municipal solid waste landfills subject to the requirements of Rule 4642 (Solid Waste Disposal Sites) are exempt from this rule.	X	X
Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Waste Landfills), or Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) are exempt from this rule.		
Except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of Nox.		X
REQUIREMENTS		
<p>The operator of any source subject to this rule shall comply with the following requirements:</p> <p>Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.</p> <p>The flame shall be present at all times when combustible gases are vented through the flare.</p> <p>The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.</p>	X	X
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.	X	
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an alternative equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		X
Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.	X	X
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.	X	
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		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
provisions of 40 CFR 60.18. <u>The requirements of this section shall not apply to Coanda effect flares.</u>		
<p>Ground-level enclosed flares shall meet the following emission standards:</p> <p><u>Flares without Steam Assist</u></p> <p>Heat Release Rate: <10 MMBtu VOC limit = 0.0051 (lb/MMBtu) Nox limit = 0.0952 (lb/MMBtu)</p> <p>Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu)</p> <p>Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu)</p> <p><u>Flares with Steam Assist</u></p> <p>All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)</p>	X	X
<p><u>Flare Minimization Plan</u></p> <p>Effective on and after July 1, 2011, 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. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.</p>		X
<p><u>Petroleum Refinery SO₂ Performance Targets</u></p> <p>Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p> <p>Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p>		X
<p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.		
Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.		X
ADMINISTRATIVE REQUIREMENTS		
<p><u>Compliance Determination</u></p> <p>Upon request the operator of flares that are subject to Section 5.6 shall make available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5).</p> <p>The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing.</p> <p>For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.</p>	X	X
<p>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.</p> <p>Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.</p> <p>Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.</p> <p>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.</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Flare Reporting</p> <p>Unplanned Flaring Event</p> <p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.</p> <p>Reportable Flaring Event</p> <p>Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO 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:</p> <p>The results of an investigation to determine the primary cause and contributing factors of the flaring event;</p> <p>Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented;</p> <p>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</p> <p>The date, time, and duration of the flaring event.</p>		X
<p>Annual Monitoring Report</p> <p>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:</p> <p>The total volumetric flow of vent gas in standard cubic feet for each day.</p> <p>Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Section 6.6.</p> <p>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.</p> <p>If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.</p> <p>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.</p> <p>Flare monitoring system downtime periods, including dates and times.</p> <p>For each day and for each month provide calculated sulfur dioxide emissions.</p> <p>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.</p>		
<p>Test Methods</p> <p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>VOC, 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 Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation:</p> $\text{VOC in lb/MMBtu} = \frac{(\text{ppmv dry}) \times (F, \text{ dscf / MMBtu})}{(1.135 \times 10^6) \times (20.9 - \%O_2)}$ <p>Where: F = As determined by EPA Method 19</p> <p>NOx emissions in pounds per million BTU shall be determined by using EPA Method 19.</p> <p>NOx and O₂ concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.</p>	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Testing and Sampling Methods for Flare Monitoring</p> <p>Effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:</p> <p>Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,</p> <p>Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.</p> <p>If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.</p> <p>If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.</p>		X
<p>Flow Verification Test Methods</p> <p>For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:</p> <p>EPA Methods 1 and 2;</p> <p>A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.</p> <p>Tracer gas dilution or velocity.</p> <p>Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.</p>		X
<p><u>Flare Minimization Plan</u></p> <p>By July 1, 2010, 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 shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.</p> <p>Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.</p> <p>A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.</p> <p>An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.</p> <p>An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.</p> <p>An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.</p> <p>Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.</p> <p>Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.</p> <p>An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>FMP submittals are only required if:</p> <p>The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and</p> <p>The ATC is deemed complete after June 18, 2009, and</p> <p>The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.</p> <p>When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.</p>		
<p><u>Vent Gas Composition Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate.</p> <p>Sampling that meets the following requirements:</p> <p>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.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Integrated sampling that meets the following requirements:</p> <p>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.</p> <p>Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>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.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Continuous analyzers that meet the following requirements:</p> <p>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.</p> <p>The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon.</p> <p>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.</p> <p>Continuous analyzers employing gas chromatography that meet the following requirements:</p> <p>The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide.</p> <p>The gas chromatography system shall be maintained to be accurate within 5% of full scale.</p> <p>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.</p> <p>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.</p> <p>The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11.</p> <p><u>Pilot and Purge Gas Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall 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.</p> <p><u>Water Seal Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall 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.</p> <p><u>General Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>Video Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare shall install and maintain equipment that records a real-time digital image of the flare and flame at a frame rate of no less than one frame per minute. The recorded image of the flare shall be of sufficient size, contrast,</p>		

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
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MACPHERSON OIL COMPANY HEAVY OIL CENTRAL STATIONARY SOURCE CA	FAC # STATUS: TELEPHONE:	S 1703 A 66139332046613	TYPE: TitleV TOXIC ID: 50141	EXPIRE ON: 07/31/2005 AREA: 101 / 318 INSP. DATE: 01/12
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-16-6	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM, INCLUDING: ONE GAS/LIQUID SEPARATOR, FIVE VAREC MODEL 2010 PRESSURE RELIEF VALVES WITH FLAME ARRESTORS, AND ONE 25 HP VAPOR RECOVERY COMPRESSOR, SHARED BETWEEN S-1703-16 THRU '26.
S-1703-17-4	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '26.
S-1703-18-4	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF GAUGE TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN TANKS S-1703-16 THRU '26.
S-1703-19-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-20-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF FREE WATER KNOCKOUT TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-21-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-22-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON (3,000 BBL) FIXED ROOF WASH TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-23-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-24-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF STOCK TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-25-4	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (2,000 BBL) FIXED ROOF WASTE WATER TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 AND '26.
S-1703-26-4	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) FIXED ROOF SKIM OIL TANK VENTING TO VAPOR CONTROL SYSTEM SHARED BETWEEN S-1703-16 THRU '26.
S-1703-27-3	10,000,000 BTU/HR	3020-02 G	1	815.00	815.00	A	10.0 MMBTU/HR KALDAIR INC., MARDAN M-200 SMOKELESS FLARE
S-1703-67-1	4 NOZZLES	3020-11 A	4	34.00	136.00	A	THREE 600 GALLON AND 1,000 GALLON ABOVEGROUND STORAGE TANKS WITH FOUR GASOLINE DISPENSING NOZZLES (INSTALLED PRIOR TO JULY 1, 1975)
S-1703-76-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1001

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-77-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1002
S-1703-78-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1003
S-1703-79-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1004
S-1703-80-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1008
S-1703-81-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1012
S-1703-82-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #1013
S-1703-91-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S165
S-1703-92-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S166
S-1703-93-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S136
S-1703-94-4	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON (250 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC6
S-1703-102-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #101
S-1703-103-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #102
S-1703-104-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #103
S-1703-107-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S156
S-1703-108-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S158
S-1703-109-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON (5,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #50S105
S-1703-113-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #10S640
S-1703-114-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S157
S-1703-115-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #501
S-1703-116-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #502

Detailed Facility Report
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-117-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON (100 BBL) OPEN TOP PETROLEUM STORAGE TANK #503
S-1703-118-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S129
S-1703-119-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON (500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #5S595
S-1703-120-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S700
S-1703-126-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON (1,000 BBL) OPEN TOP PETROLEUM STORAGE TANK #10S124
S-1703-128-3	63,000 gallons	3020-05 D	1	185.00	185.00	A	63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #15S125
S-1703-129-3	63,000 gallons	3020-05 D	1	185.00	185.00	A	63,000 GALLON (1,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #TOC1
S-1703-130-3	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) FIXED ROOF PETROLEUM STORAGE TANK #20S150
S-1703-131-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) OPEN TOP PETROLEUM STORAGE TANK #25S168
S-1703-132-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #ACT
S-1703-133-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2,500 BBL) FIXED ROOF PETROLEUM STORAGE TANK #25S110
S-1703-134-3	TEOR SYSTEM (6 WELLS)	3020-09 A	6	9.34	56.04	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH UP TO 6 STEAM DRIVE WELLS, INCLUDING PIPING FROM CASING ANNULUS TO WELLHEAD PRODUCTION FLOWLINE
S-1703-139-8	420,000 gallon	3020-05 E	1	246.00	246.00	A	420,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID# 10RM105-U.S.L. LEASE WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-139, '-140, '-170, '-171, AND '-191 VENTING TO TEOR SYSTEM LISTED ON '-143 (U.S.L. LEASE)
S-1703-140-7	252,000 gallons	3020-05 E	1	246.00	246.00	A	252,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK ID # 6RM107-U.S.L. LEASE VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-139
S-1703-141-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON FIXED ROOF WASH TANK ID # 5RM102 - U.S.L. LEASE
S-1703-143-15	80 wells	3020-09 A	80	9.34	747.20	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) WELL VENT VAPOR CONTROL SYSTEM SERVING 80 STEAM ENHANCED WELLS AND TANK VAPOR CONTROL SYSTEMS S-1703-139, -144, AND -184 SERVED BY H2S SCRUBBER SYSTEM WITH COMPRESSED VAPOR PIPING TO STEAM GENERATORS S-1703-157, -158, -159, -160, -161, AND -162 FOR INCINERATION OF UNCONDENSED VAPORS OR TO GAS DISPOSAL WELL

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-144-7	84,000 gallon	3020-05 D	1	185.00	185.00	A	84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #T-240 WITH VAPOR CONTROL SYSTEM SERVING TANKS S-1703-144, '-145, '-146, '-150, AND '-152 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-143 OR TO STEAM GENERATORS S-1703-157, '-158, '-159, '-160, '-161, AND '-162
S-1703-145-8	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK T-245 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-146-8	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL WASH TANK T-110 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-150-8	138,600 gallons	3020-05 E	1	246.00	246.00	A	3,300 BBL FIXED ROOF CRUDE OIL WASH TANK T-220 VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-152-7	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON (2500 BBL) FIXED ROOF SLOP TANK T-320A VENTING TO VAPOR CONTROL SYSTEM LISTED ON '-144
S-1703-156-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	210,000 GALLON FREE WATER KNOCKOUT TANK 5RM101
S-1703-157-8	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #610 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-158-8	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #620 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-159-10	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #630 WITH COEN QLN LOW NOX BURNER, FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-160-10	62.5 MM Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #640 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-161-10	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #650 WITH COEN QLN LOW NOX BURNER AND FLUE GAS RECIRCULATION (FGR), FIRING TEOR GAS AND TVR GAS FROM S-1703-143 AND/OR TANK VAPOR CONTROL GAS FROM S-1703-139, '-144, AND '-184
S-1703-162-8	62,500 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL/TEOR/TANK VAPOR CONTROL SYSTEM GAS-FIRED STEAM GENERATOR #660 WITH COEN QLN ULTRA LOW NOX BURNER WITH FLUE GAS RECIRCULATION
S-1703-163-3	210,000 gallons	3020-05 E	1	246.00	246.00	A	5,000 BBL FIXED ROOF CRUDE OIL/WASTE WATER STORAGE TANK #50S106
S-1703-164-3	31,500 gallons	3020-05 C	1	135.00	135.00	A	31,500 GALLON/750 BARREL OPEN TOP WASTEWATER TANK [TANK #TOC002]

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-165-3	42,000 gallons	3020-05 C	1	135.00	135.00	A	42,000 GALLON/1,000 BBL FIXED ROOF WASTEWATER TANK [TANK #TOC003]
S-1703-166-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #ES1]
S-1703-167-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S105]
S-1703-168-3	105,000 gallons	3020-05 E	1	246.00	246.00	A	105,000 GALLON/2,500 BBL FIXED ROOF WASTEWATER TANK [TANK #25S190]
S-1703-169-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BARREL FIXED ROOF BLEED TANK [TANK #J-1]
S-1703-170-7	142,000 gallons	3020-05 E	1	246.00	246.00	A	142,800 GALLON/3,400 BBL FIXED ROOF WASTEWATER TANK [TANK #34RM105] VENTING TO VAPOR CONTROL SYSTEM LISTED ON -139
S-1703-171-7	4200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL FIXED ROOF SKIM TANK [TANK #S201] VENTING TO VAPOR CONTROL SYSTEM LISTED ON -139
S-1703-173-3	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-1]
S-1703-174-3	10,500 gallons	3020-05 B	1	93.00	93.00	A	10,500 GALLON/250 BBL OPEN TOP TEST TANK [TANK #STA4-2]
S-1703-175-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA6]
S-1703-176-3	4,200 gallons	3020-05 A	1	75.00	75.00	A	4,200 GALLON/100 BBL OPEN TOP TEST TANK [TANK #STA7]
S-1703-177-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-1]
S-1703-178-3	21,000 gallons	3020-05 C	1	135.00	135.00	A	21,000 GALLON/500 BBL OPEN TOP TEST TANK [TANK #STA2-2]
S-1703-179-4	126,000 gallons	3020-05 E	1	246.00	246.00	A	126,000 GALLON/3,000 BBL OPEN TOP WASTEWATER TANK [TANK #3RM104]
S-1703-180-13	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR C.E. NATCO GAS-FIRED STEAM GENERATOR #670 WITH COEN MODEL QLN BURNER AND FLUE GAS RECIRCULATION SYSTEM (C-5, DIS # 27554-74)
S-1703-181-0	62.5 MMBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR THERMOTICS GAS/CASING GAS-FIRED STEAM GENERATOR W/LO-NOX BURNER, OXYGEN CONTROLLER/ANALYZER (B-1, DIS# 27529-71)
S-1703-184-3	420,000 gallon	3020-05 E	1	246.00	246.00	A	10,000 BARREL FREE WATER KNOCKOUT TANK T-1210 SERVED BY THE VAPOR CONTROL SYSTEM SHARED WITH S-1703-186 AND -187, INCLUDING HEAT EXCHANGERS, FREE WATER KNOCKOUTS, GAS LIQUID SEPARATORS, VAPOR COMPRESSORS WITH ELECTRIC MOTORS, AND COMPRESSED VAPOR PIPING TO ANY OF THE FOLLOWING STEAM GENERATORS: S-1703-157, -158, -159, -160, -161, AND -162
S-1703-186-4	84,000 gallons	3020-05 D	1	185.00	185.00	A	84,000 GALLON (2,000 BBL) STOCK TANK T-1230 SERVED BY THE VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184
S-1703-187-2	21,000 gallons	3020-05 B	1	93.00	93.00	A	500 BBL FIXED ROOF SLOP OIL TANK #T-1260 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1703-184

Detailed Facility Report
For Facility=1703 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1703-191-1	21,000 gallons	3020-05 B	1	93.00	93.00	A	500 BBL FIXED ROOF CRUDE OIL TEST TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1703-139 (U.S.L. LEASE)

Number of Facilities Reported: 1

ATTACHMENT E

Rule 4311, 4306, 4601 Stringency Analysis

Comparison of the latest amended version (amended June 18, 2009) of District Rule 4311 and the current SIP approved version, adopted June 20, 2002

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
APPLICABILITY		
This rule is applicable to operations involving the use of flares.	X	X
DEFINITIONS		
Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.	X	X
Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).		X
Air Resources Board (ARB): as defined in Rule 1020 (Definitions).		X
British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59° F to 60° F at one atmosphere.		X
Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.		X
Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface inspiring air into the gas to promote combustion.		X
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable event beyond the control of the operator. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.	X	
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not qualify as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.		X
Enclosed Flare: a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
wide range of flow rates.		
EPA: United States Environmental Protection Agency.		X
Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.		X
Flare: a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.	X	X
Flare Event: any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the APCO in the Flare Monitoring and Recording Plan. For a flare event that continues for more than one calendar day, each calendar day or venting of gases shall constitute a separate flare event.		X
Flare Gas: gas burned in a flare.	X	X
Flare Minimization Plan (FMP): a document intended to meet the requirements of Section 6.5 of this Rule.		X
Flare Monitoring System: all flare monitoring and recording equipment used for the determination of flare operating parameters. Flare monitoring and recording equipment includes, but is not limited to, sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, and video monitoring equipment and video recording equipment.		X
Flexigas: a low BTU fuel gas produced by gasifying coke produced in a fluid-bed Coker. Due to the air used in the gasifying process, Flexigas is approximately 50% nitrogen.		X
Gaseous Fuel: any gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.	X	X
Major Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).	X	
MMBtu: million British thermal units.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares, that by design, provide excess air at the flare tip.	X	X
Nox: any nitrogen oxide compounds	X	X
Open Flare: a vertically or horizontally oriented open pipe flare from which gases are released into the air before combustion is commenced.	X	X
Operator: includes, but not limited to, any person who owns, leases, supervises, or operates a facility.		X
Petroleum Refinery: a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining. For the purpose of this rule, all portions of the petroleum refining operation, including those at non-contiguous locations operating flares, shall be considered as one petroleum refinery.		X
Pilot: an auxiliary burner used to ignite the vent gas routed to a flare.		X
Pilot Gas: the gas used to maintain the presence of a flame for ignition of vent gases.		X
<p>Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. The operation of a flare for the purpose of performing equipment maintenance provided it does not exceed 200 hours per calendar year, or during compliance source testing or visible emission inspections is not considered planned flaring. Planned flaring includes, but is not limited to, the following flaring activities:</p> <ul style="list-style-type: none"> Oil or gas well tests, well related work, tests ordered by a regulatory agency. Equipment depressurization for maintenance purposes. Equipment start-up or shutdown. Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists. Flaring of off-specification gas (i.e. non PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency. 	X	
Planned Flaring: a flaring operation that constitutes a		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following flaring activities:</p> <p>Oil or gas well tests, well related work, tests ordered by a regulatory agency.</p> <p>Equipment depressurization for maintenance purposes.</p> <p>Equipment start-up or shutdown.</p> <p>Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists.</p> <p>Flaring of off-specification gas (i.e. non-PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.</p> <p>The operation of a flare for the purpose of performing equipment maintenance.</p>		
<p>Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.</p>		X
<p>Public Utilities Commission (PUC) Quality Gas: any gaseous fuel, gas containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.</p>	X	X
<p>Purge Gas: Nitrogen, carbon dioxide, liquefied petroleum gas, or natural gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide sufficient exit velocity to prevent any regressive flame travel back into the flare header.</p>	X	X
<p>Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.</p>		X
<p>Reportable Flaring Event: any flaring where more than 500,000 standard cubic feet of vent gas is flared per calendar day, or where sulfur oxide emissions are greater than 500 pounds per calendar day. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 6.8 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 6.8, a reportable flaring event ends when the rate of flow of vent gas falls below 0.12 feet per second.</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Representative Sample: a sample of vent gas collected from the location as approved for flare monitoring and analyzed utilizing test methods specified in Section 6.3.4.		X
Shutdown: the procedure by which the operation of a process unit or piece of equipment is stopped due to the end of a production run, or for the purpose of performing maintenance, repair and replacement of equipment. Stoppage caused by frequent breakdown due to poor maintenance or operator error shall not be deemed a shutdown.		X
Startup: the procedure by which a process unit or piece of equipment achieves normal operational status, as indicated by such parameters as temperature, pressure, feed rate and product quality.		X
Steam-Assisted Flare: a combustion device where steam is injected into the combustion zone to promote turbulence for the mixing of the combustion air before it is introduced to the flame.		X
Thermal oxidizer: an enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.		X
Total Organic Gases (TOG): all hydrocarbon compounds containing hydrogen and carbon with or without other chemical elements.	X	X
Turnaround: a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair, replacement of equipment or installation of new equipment.		X
Vent Gas: any gas directed into a flare, excluding assisting air or steam, flare pilot gas, and any continuous purge gases.		X
Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).	X	X
Water Seal: a liquid barrier, or seal, to prevent the passage of gas. Water seals provide a positive means of flash-back prevention in addition to enabling the upstream flare system header to operate at a slight positive pressure at all times.		X
EXEMPTIONS		
Flares operated in municipal solid waste landfills subject to the requirements of Rule 4642 (Solid Waste Disposal Sites) are exempt from this rule.	X	X
Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Waste Landfills), or Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) are exempt from this rule.		
Except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of Nox.		X
REQUIREMENTS		
<p>The operator of any source subject to this rule shall comply with the following requirements:</p> <p>Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.</p> <p>The flame shall be present at all times when combustible gases are vented through the flare.</p> <p>The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.</p>	X	X
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.	X	
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, <u>or an alternative equivalent device</u> , capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		X
Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.	X	X
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.	X	
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		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
provisions of 40 CFR 60.18. <u>The requirements of this section shall not apply to Coanda effect flares.</u>		
<p>Ground-level enclosed flares shall meet the following emission standards:</p> <p><u>Flares without Steam Assist</u></p> <p>Heat Release Rate: <10 MMBtu VOC limit = 0.0051 (lb/MMBtu) Nox limit = 0.0952 (lb/MMBtu)</p> <p>Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu)</p> <p>Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu)</p> <p><u>Flares with Steam Assist</u></p> <p>All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)</p>	X	X
<p><u>Flare Minimization Plan</u></p> <p>Effective on and after July 1, 2011, 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. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.</p>		X
<p><u>Petroleum Refinery SO₂ Performance Targets</u></p> <p>Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p> <p>Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.</p>		X
<p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.		
Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.		X
ADMINISTRATIVE REQUIREMENTS		
<p><u>Compliance Determination</u></p> <p>Upon request the operator of flares that are subject to Section 5.6 shall make available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5).</p> <p>The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing.</p> <p>For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.</p>	X	X
<p>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.</p> <p>Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.</p> <p>Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.</p> <p>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.</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Flare Reporting</p> <p>Unplanned Flaring Event</p> <p>Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.</p> <p>Reportable Flaring Event</p> <p>Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO 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:</p> <p style="padding-left: 40px;">The results of an investigation to determine the primary cause and contributing factors of the flaring event;</p> <p style="padding-left: 40px;">Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented;</p> <p style="padding-left: 40px;">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</p> <p style="padding-left: 40px;">The date, time, and duration of the flaring event.</p>		X
<p>Annual Monitoring Report</p> <p>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:</p> <p style="padding-left: 40px;">The total volumetric flow of vent gas in standard cubic feet for each day.</p> <p style="padding-left: 40px;">Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Section 6.6.</p> <p>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.</p> <p>If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.</p> <p>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.</p> <p>Flare monitoring system downtime periods, including dates and times.</p> <p>For each day and for each month provide calculated sulfur dioxide emissions.</p> <p>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.</p>		
<p><u>Test Methods</u></p> <p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>VOC, 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 Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation:</p> $\text{VOC in lb/MMBtu} = \frac{(\text{ppmv dry}) \times (F, \text{dscf} / \text{MMBtu})}{(1.135 \times 10^6) \times (20.9 - \%O_2)}$ <p>Where: F = As determined by EPA Method 19</p> <p>NOx emissions in pounds per million BTU shall be determined by using EPA Method 19.</p> <p>NOx and O₂ concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.</p>	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>Testing and Sampling Methods for Flare Monitoring</p> <p>Effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:</p> <p>Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,</p> <p>Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.</p> <p>If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.</p> <p>If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.</p>		X
<p>Flow Verification Test Methods</p> <p>For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:</p> <p>EPA Methods 1 and 2;</p> <p>A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.</p> <p>Tracer gas dilution or velocity.</p> <p>Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.</p>		X
<p><u>Flare Minimization Plan</u></p> <p>By July 1, 2010, 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 shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.</p> <p>Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.</p> <p>A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.</p> <p>An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.</p> <p>An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.</p> <p>An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.</p> <p>Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.</p> <p>Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.</p> <p>An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>FMP submittals are only required if:</p> <p>The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and</p> <p>The ATC is deemed complete after June 18, 2009, and</p> <p>The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.</p> <p>When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.</p>		
<p><u>Vent Gas Composition Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate.</p> <p>Sampling that meets the following requirements:</p> <p>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.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Integrated sampling that meets the following requirements:</p> <p>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.</p> <p>Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample</p>		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>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.</p> <p>Samples shall be analyzed pursuant to Section 6.3.4.</p> <p>Continuous analyzers that meet the following requirements:</p> <p>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.</p> <p>The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon.</p> <p>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.</p> <p>Continuous analyzers employing gas chromatography that meet the following requirements:</p> <p>The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide.</p> <p>The gas chromatography system shall be maintained to be accurate within 5% of full scale.</p> <p>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.</p> <p>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.</p> <p>The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11.</p> <p><u>Pilot and Purge Gas Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall 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.</p> <p><u>Water Seal Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
<p>petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall 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.</p> <p><u>General Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>Video Monitoring</u></p> <p>Effective on and after July 1, 2011, the operator of a petroleum refinery flare shall install and maintain equipment that records a real-time digital image of the flare and flame at a frame rate of no less than one frame per minute. The recorded image of the flare shall be of sufficient size, contrast,</p>		

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
and resolution to be readily apparent in the overall image or frame. The image shall include an embedded date and time stamp. The equipment shall archive the images for each 24-hour period. In lieu of video monitoring the operator may use an alternative monitoring method that provides data to verify date, time, vent gas flow, and duration of flaring events.		

Stringency Comparison of District Rule 4401 Non-SIP Version (12/14/2006) to Current SIP Version (1/15/1998)

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
2.0 Applicability	2.0 This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.	2.0 This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.	No change in applicability, therefore, non-SIP version of rule is as stringent as SIP version.
4.0 Exemptions	4.1 Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing.	4.1 Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing.	No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.
	4.2 The requirements of this rule for cyclic wells shall not apply to the first 100 cyclic wells of a small producer.	4.2 Effective until December 31, 2008, the requirements of this rule for cyclic wells shall not apply to the first 100 cyclic wells of a small producer.	After January 1, 2009, this exemption is no more valid. Thus removing an exemption makes the current non-SIP version of the rule more stringent than the SIP version.
	4.3 The requirements of this rule for cyclic wells shall not apply to up to 40 wells owned by a company and undergoing pilot testing provided; 4.3.1 the production zone on that property has not been injected with steam during the preceding two (2) years, 4.3.2 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.3.3 the operation is under District permit.	4.3 The requirements of this rule for cyclic wells shall not apply to up to 40 wells owned by a company and undergoing pilot testing provided; 4.3.1 the production zone on that property has not been injected with steam during the preceding two (2) years, 4.3.2 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.3.3 the operation is under District permit.	No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.
	4.4 The requirements of this rule shall not apply to up to 40 cyclic wells owned by a company and undergoing well stimulation, provided; 4.4.1 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.4.2 the operation is under District permit.	4.4 The requirements of this rule shall not apply to up to 40 cyclic wells owned by a company and undergoing well stimulation, provided; 4.4.1 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.4.2 the operation is under District permit.	No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
4.0 Exemptions (continued)	<p>4.5 The requirements of this rule shall not apply to up to 20 cyclic wells owned by a company in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), provided:</p> <p>4.5.1 the well is located more than 1000 feet from an existing well vent vapor control system operated by the company, and</p> <p>4.5.2 the operation is under District permit.</p>	<p>4.5 Effective until December 31, 2008, the requirements of this rule shall not apply to up to 20 cyclic wells owned by a company in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), provided the requirements of Section 4.5.1 and Section 4.5.2 are met. Effective on and after January 1, 2009, the requirements of this rule shall not apply to up to five (5) cyclic wells owned by a company that is not a small producer, in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), and up to 20 cyclic wells owned by a small producer, provided the requirements of Section 4.5.1 and Section 4.5.2 are met.</p> <p>4.5.1 the well is located more than 1000 feet from an existing well vent vapor control system operated by the company, and</p> <p>4.5.2 the operation is under District permit.</p>	<p>After January 1, 2009, the non SIP version exemption is more stringent because it reduced the maximum number of cyclic wells that could be previously exempt.</p> <p>Therefore, the non-SIP version of the rule is more stringent than the SIP version.</p>
	<p>4.6 The requirements of this rule shall not apply to the first ten (10) wells of a small producer that are responding to steam injected from an operator other than themselves and where no contractual agreement for injected steam exists, and provided the small producer meets the following conditions:</p> <p>4.6.1 A list of wells that are exempted by Section 4.6 shall be submitted to the APCO by July 15, 1998.</p> <p>4.6.2 Source testing of the well vent that is nearest to the steam injection well shall be conducted by January 15, 2001 in order to determine its VOC mass emission rate. Source testing shall be conducted in accordance with Section 6.4.4.</p>	<p>4.6 Effective until December 31, 2008, the requirements of this rule shall not apply to the first ten (10) wells of a small producer that are responding to steam injected from an operator other than themselves and where no contractual agreement for injected steam exists, and provided the small producer meets the following conditions:</p> <p>4.6.1 A list of wells that are exempted by Section 4.6 shall be submitted to the APCO by July 15, 1998.</p> <p>4.6.2 Source testing of the well vent that is nearest to the steam injection well shall be conducted by January 15, 2001 in order to determine its VOC mass emission rate. Source testing shall be conducted in accordance with Section 6.3.4.</p>	<p>After January 1, 2009, this exemption is no more valid. Thus removing an exemption makes the current non-SIP version of the rule more stringent than the SIP version.</p>
	<p>4.7 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of this rule shall be exempt from Best Available Control Technology (BACT) and Offset requirements of Rule 2201 (New and Modified Stationary Source Review Rule) for all air pollutants provided the conditions in Sections 4.7.1 through 4.7.4 are met. The exemption in Section 4.7 does not apply to a project that converts a non-steam enhanced well to a steam enhanced crude oil production well, or the addition of new steam enhanced wells in existing facilities.</p> <p>4.7.1 there shall be no change in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;</p> <p>4.7.2 there shall be no change in the permitted rating or permitted operating schedule of the permitted unit;</p> <p>4.7.3 there shall be no increase in permitted emissions or potential to emit from the stationary source that will cause or contribute to any violation of the National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class 1 areas; and</p> <p>4.7.4 the project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NOx, or 25 tons per year of VOC, or 15 tons per year of SOx, or 15 tons per year of PM-10 or 50 tons per year of CO</p>		<p>This exemption has been removed in the non-SIP version of the rule, thus making the non-SIP version of the rule more stringent than the SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
4.0 Exemptions (continued)	--	4.7 The requirements of this rule shall not apply to components serving the produced fluid line.	<p>This exemption has been added in the non-SIP version of the rule and is needed as the changes to the title and purpose of the rule make these components subject to the rule which is not what is intended as such produced fluid side components are currently not subject to the rule.</p> <p>Therefore, this new exemption does not relax any requirement and is as stringent as the SIP version of the rule.</p>
	--	<p>4.8 Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.8.1 through Section 4.8.4. An operator claiming an exemption pursuant to Section 4.8 shall provide proof of the applicable criteria to the satisfaction of the APCO.</p> <p>4.8.1 Pressure relief devices, pumps, and compressors that are enclosed and whose emissions are controlled with an operating VOC collection and control system as defined in Section 3.0.</p> <p>4.8.2 Components buried below ground.</p> <p>4.8.3 Components used exclusively in vacuum service.</p> <p>4.8.4 One-half inch nominal or less stainless steel tube fittings which have been demonstrated to the APCO to be leak-free based on initial inspection using the test method specified in Section 6.3.3.</p>	<p>This exemption has been added to the non-SIP version of the rule to allow certain components to be exempt from most of the requirements of the rule. These components do not involve with any VOC emissions; therefore, this new exemption does not relax any requirement of this rule or result in an increase in emissions.</p> <p>Therefore, the non-SIP version of the rule is as stringent as the SIP version.</p>
	--	4.9 Effective on and after January 1, 2009, the requirements of Section 5.8.1 through Section 5.8.5 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 6.3.5.	<p>This exemption has been added to the non-SIP version of the rule to help mitigate some of the cost impacts. As the potential VOC emissions from components handling gas/vapor or liquid with a VOC content of ten percent by weight or less are expected to be minimal, it is expected that these inspection requirements for such components are not cost effective. Such components that are found to be leaking are still subject to the tagging and repair requirements. These components are currently subject to the repair requirements of the rule and will continue to be subject to such requirements.</p> <p>Therefore, this new exemption does not relax any requirement of this rule or result in an increase in emissions, and, thus, the non-SIP version of the rule is as stringent as the SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
5.0 Requirements		<p>Note: Section 5.1 through Section 5.4 were effective until December 31, 2008, whereas Section 5.5 through Section 5.9 are effective on and after January 1, 2009.</p> <p>Therefore, Section 5.5 through Section 5.9 of non-SIP version of the rule will be compared to Section 5.1 through Section 5.4 of SIP version of rule.</p>	
	<p>5.1 No person shall operate a steam-enhanced crude oil production well, except cyclic wells meeting the requirements of Section 5.4, unless the uncontrolled VOC emissions from any well vent are reduced by at least 99 percent by weight, or</p> <p>5.2 If several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent.</p>	<p>5.5 An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.5.1 or Section 5.5.2.</p> <p>5.5.1 The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.</p> <p>5.5.2 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.</p>	<p>The requirements for operating a steam-enhanced crude oil production well and the control of VOC emissions from the well vent are rewritten for better clarity. Therefore, there is no change in requirements and non-SIP version of the rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion																										
5.0 Requirements (continued)	<p>5.3 All components of a well vent vapor collection and control system shall be maintained in good repair. A total number of leaks is a violation of this rule if it exceeds the number of allowable leaks. Vapor collection and control systems serving 501 or more wells shall be determined to be in violation of the number of allowable leaks if more than one (1) leak is detected for each 20 wells tested with a minimum of 50 wells tested.</p> <table border="1" data-bbox="338 444 915 675"> <thead> <tr> <th data-bbox="338 444 768 537">Number of Steam Enhanced Crude Oil Production Wells Connected to a Vapor Collection and Control System</th> <th data-bbox="768 444 915 537">Number of Allowable Leaks</th> </tr> </thead> <tbody> <tr> <td data-bbox="338 537 768 570">Up to and including 25</td> <td data-bbox="768 537 915 570">3</td> </tr> <tr> <td data-bbox="338 570 768 594">26 to 50</td> <td data-bbox="768 570 915 594">6</td> </tr> <tr> <td data-bbox="338 594 768 618">51 to 100</td> <td data-bbox="768 594 915 618">8</td> </tr> <tr> <td data-bbox="338 618 768 643">101 to 250</td> <td data-bbox="768 618 915 643">10</td> </tr> <tr> <td data-bbox="338 643 768 675">251 to 500</td> <td data-bbox="768 643 915 675">15</td> </tr> </tbody> </table>	Number of Steam Enhanced Crude Oil Production Wells Connected to a Vapor Collection and Control System	Number of Allowable Leaks	Up to and including 25	3	26 to 50	6	51 to 100	8	101 to 250	10	251 to 500	15	<p>5.6 Determination of Compliance with the Leak Standards</p> <p>5.6.1 An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.8 demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility.</p> <p>5.6.2 Leak Standards</p> <p>The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1:</p> <p>5.6.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.</p> <p>5.6.2.2 Existence of a component with a major liquid leak as defined in Section 3.0.</p> <p>5.6.2.3 Existence of a component with a gas leak greater than 50,000 ppmv.</p> <p>5.6.2.4 Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 3.</p> <p>5.6.2.4.1 A minor liquid leak, or</p> <p>5.6.2.4.2 A minor gas leak, or</p> <p>5.6.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.</p> <p>Table 3 Number of Allowable Leaks</p> <table border="1" data-bbox="947 997 1499 1338"> <thead> <tr> <th data-bbox="947 997 1283 1070">Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th> <th data-bbox="1283 997 1499 1070">Number of Allowable Leaks</th> </tr> </thead> <tbody> <tr> <td data-bbox="947 1070 1283 1094">1 to 25</td> <td data-bbox="1283 1070 1499 1094">3</td> </tr> <tr> <td data-bbox="947 1094 1283 1118">26 to 50</td> <td data-bbox="1283 1094 1499 1118">6</td> </tr> <tr> <td data-bbox="947 1118 1283 1143">51 to 100</td> <td data-bbox="1283 1118 1499 1143">8</td> </tr> <tr> <td data-bbox="947 1143 1283 1167">101 to 250</td> <td data-bbox="1283 1143 1499 1167">10</td> </tr> <tr> <td data-bbox="947 1167 1283 1192">251 to 500</td> <td data-bbox="1283 1167 1499 1192">15</td> </tr> <tr> <td data-bbox="947 1192 1283 1338">More than 500</td> <td data-bbox="1283 1192 1499 1338">One (1) for each 20 wells tested with a minimum of 50 wells tested.</td> </tr> </tbody> </table>	Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System	Number of Allowable Leaks	1 to 25	3	26 to 50	6	51 to 100	8	101 to 250	10	251 to 500	15	More than 500	One (1) for each 20 wells tested with a minimum of 50 wells tested.	<p>This section of the non-SIP version of the rule has been amended to specify conditions that would cause an operator to be in violation of the rule.</p> <p>None of these amendments relax any existing requirements; therefore, the non-SIP version of the rule is as stringent as SIP version.</p>
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More than 500	One (1) for each 20 wells tested with a minimum of 50 wells tested.																												

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
5.0 Requirements (continued)	--	<p>5.7 An operator shall comply with the following operating requirements:</p> <p>5.7.1 An operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.6.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of this rule.</p> <p>5.7.2 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.</p> <p>5.7.3 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.</p>	<p>This new section has more stringent requirements to prohibit an operator from using any component with a leak or that is counted towards determination of a violation pursuant to Section 5.6.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
5.0 Requirements (continued)		<p>5.8 Inspection and Re-inspection Requirements Unless otherwise specified, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3.</p> <p>5.8.1 Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year.</p> <p>5.8.2 An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule.</p> <p>5.8.3 In addition to the inspections required by Section 5.8.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows:</p> <p>5.8.3.1 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.</p> <p>5.8.3.2 Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule.</p> <p>5.8.4 In addition to the inspections required by Section 5.8.1, Section 5.8.2 and Section 5.8.3, an operator shall perform the following inspections:</p> <p>5.8.4.1 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.</p> <p>5.8.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service.</p> <p>5.8.4.3 Except for PRDs subject to the requirements of Section 5.8.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced.</p> <p>5.8.5 An operator shall inspect all unsafe-to-monitor components during each turnaround.</p> <p>5.8.6 A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator.</p>	<p>The more stringent inspection and re-inspection requirements are added to the non-SIP version of the rule.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
5.0 Requirements (continued)	<p>5.3.1 An operator, upon detection of a leak, shall affix a readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired. Failure to repair a leak within fifteen (15) calendar days shall constitute a violation of this rule. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions have and are being taken to correct the leak. Failure to repair a leak after a ten (10) calendar day extension constitutes a violation of this rule.</p> <p>5.3.2 For the purpose of Section 5.3, 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.</p>	<p>5.9 Leak Repair Requirements</p> <p>5.9.1 An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag:</p> <p>5.9.1.1 The date and time of leak detection.</p> <p>5.9.1.2 The date and time of leak measurement.</p> <p>5.9.1.3 For a gaseous leak, the leak concentration in ppmv.</p> <p>5.9.1.4 For a liquid leak, whether it is a major liquid leak or a minor liquid leak.</p> <p>5.9.1.5 Whether the component is an essential component, an unsafe-to-monitor component, or a critical component.</p> <p>5.9.2 An operator shall keep the tag affixed to the component until an operator has met all of the following conditions:</p> <p>5.9.2.1 Repaired or replaced the leaking component, and</p> <p>5.9.2.2 Re-inspected the component using the test method in Section 6.3.3, and</p> <p>5.9.2.3 The component is found to be in compliance with the requirements of this rule.</p> <p>5.9.3 An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one hour after detection of the leak.</p> <p>5.9.4 Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.9.4.1, Section 5.9.4.2, or Section 5.9.4.3 as soon as practicable but not later than time period specified in Table 4.</p> <p>5.9.4.1 Repair or replace the leaking component; or</p> <p>5.9.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or</p> <p>5.9.4.3 Remove the leaking component from operation.</p> <p>5.9.5 The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4.</p> <p>5.9.6 The time of the initial leak detection shall be the start of the repair period specified in Table 4</p> <p>5.9.7 If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier.</p>	<p>The SIP version of the rule is less stringent, because it gives an operator 15 calendar days to repair a leak. Whereas the non-SIP version of the rule requires an immediate action to stop or minimize the leak within one hour of detection of leak. In addition, the leak repair requirements regarding additional time for essential and critical components are more stringent than SIP version of the rule.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version.</p>
	5.4 No person shall operate a cyclic well located on properties with less than ten (10) cyclic wells, owned by a company, unless the uncontrolled VOC emissions from any well vent or system of well vents connected to a single vapor collection and control device are reduced by at least 50 percent. Properties shall include contiguous and adjacent oil production properties owned by or under control of the company.	--	This section was superseded by a more stringent section 5.5 of the non-SIP version of the rule. Therefore, the non-SIP version of rule is more stringent than the SIP version.

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
<p>6.0 Administrative Requirements</p>	<p>6.1 Recordkeeping and Submissions An operator shall maintain the records required by Sections 6.1, and 6.2 for a period of two (2) years. These records shall be made available to the APCO upon request.</p> <p>6.1.1 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.</p> <p>6.1.2 Effective January 15, 1998, a small producer shall maintain monthly records of county-specific crude oil production. For the purpose 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.</p> <p>6.1.3 Effective January 15, 1998, the operator of any steam enhanced crude oil production well shall keep source test records which show that the control efficiency requirements of Sections 5.1, 5.2 or 5.4 are satisfied.</p> <p>6.1.4 The results of source tests conducted pursuant to Section 4.6.2 shall be submitted to the APCO within 60 days after the completion of the source test.</p>	<p>6.1 Recordkeeping and Submissions An operator shall maintain the records required by Sections 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request.</p> <p>6.1.1 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.</p> <p>6.1.2 Effective January 15, 1998, a small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2.</p> <p>6.1.3 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.</p> <p>6.1.4 Effective until December 31, 2008, the results of source tests conducted pursuant to Section 4.6.2 shall be submitted to the APCO within 60 days after the completion of the source test.</p> <p>6.1.5 Effective on and after January 1, 2009, the inspection log maintained pursuant to Section 6.4.</p> <p>6.1.6 Effective on and after January 1, 2009, records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration.</p> <p>6.1.7 Effective on and after January 1, 2009, an operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.</p> <p>6.1.8 Effective on and after January 1, 2009, an operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.</p> <p>6.1.9 An operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment.</p> <p>6.1.10 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.</p> <p>6.1.11 Effective on and after January 1, 2007, an operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year.</p>	<p>This section of non-SIP version was amended to include more stringent record keeping and submission requirements.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
<p>6.0 Administrative Requirements (continued)</p>	<p>6.2 Compliance Source Testing</p> <p>6.2.1 Compliance testing shall be performed annually by source testers certified by the California Air Resources Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. 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.</p> <p>6.2.1.1 The APCO may waive 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.</p> <p>6.2.1.2 The APCO may waive the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device.</p>	<p>6.2 Compliance Source Testing</p> <p>6.2.1 An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature.</p> <p>6.2.2 If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed 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.</p> <p>6.2.3 If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device.</p> <p>6.2.4 An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request.</p> <p>6.2.5 An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17:</p> <p>6.2.5.1 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.</p> <p>6.2.5.2 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.</p>	<p>This section was amended to clarify the existing provisions of the section and to require an operator that wants to forego some of the annual testing requirements to receive approval from EPA, ARB and the APCO. Review of operator requests by the oversight agencies should prevent possible rule circumvention which was an expressed EPA concern. Provisions were also added to specify the testing requirements for the true vapor pressure of gauge tanks, as defined in the rule.</p> <p>These requirements are at least as stringent as in the SIP version of the rule. Therefore, the non-SIP version of rule is at least as stringent than the SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
<p>6.0 Administrative Requirements (continued)</p>	<p>6.4 Test Methods</p> <p>6.4.1 The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production wells shall be determined by:</p> <p>6.4.1.1 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</p> <p>6.4.1.2 the efficiency of destruction devices determined by USEPA Method 25, 25a, or 25b as applicable.</p> <p>6.4.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 432.</p> <p>6.4.3 Leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with EPA Method 21. 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.</p> <p>6.4.4 For the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, September 1981, entitled "Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery". An equivalent test method may be used provided it has been approved by the USEPA, CARB, and the APCO.</p>	<p>6.3 Test Methods</p> <p>Test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.5 may be used provided that such equivalent test methods have been previously approved, in writing, by the EPA, ARB, and the APCO.</p> <p>6.3.1 The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported.</p> <p>6.3.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432.</p> <p>6.3.3 Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface.</p> <p>6.3.4 Effective until December 31, 2008, for the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, September 1981, entitled "Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery".</p> <p>6.3.5 The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids.</p>	<p>This section was amended to specify that the control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. In addition, this section was amended to specify that test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.5 may be used provided such equivalent test methods have been previously approved, in writing, by EPA, ARB, and the APCO.</p> <p>These requirements are at least as stringent as in the SIP version of the rule. Therefore, the non-SIP version of rule is at least as stringent than the SIP version.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
6.0 Administrative Requirements (continued)		<p>6.4 Inspection Log</p> <p>Effective on and after January 1, 2009, an operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed:</p> <p>6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type.</p> <p>6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found.</p> <p>6.4.3 The date of leak detection and the method of leak detection.</p> <p>6.4.4 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.</p> <p>6.4.5 The date of repair, replacement, or removal from operation of leaking components.</p> <p>6.4.6 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.</p> <p>6.4.7 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.</p> <p>6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced.</p> <p>6.4.9 The inspector's name, business mailing address, and business telephone number.</p> <p>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.</p>	<p>This new section has more stringent requirements regarding maintaining inspection logs which were not required by the SIP version of the rule.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version of the rule.</p>
		<p>6.5 Employee Training Program</p> <p>Effective on and after January 1, 2009, an operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.</p>	<p>This new section has more stringent requirement regarding employee training program which was not required by the SIP version of the rule.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
<p>6.0 Administrative Requirements (continued)</p>		<p>6.6 Operator Management Plan</p> <p>By June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information:</p> <p>6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule.</p> <p>6.6.2 Identification and description of any known hazard that might affect the safety of an inspector.</p> <p>6.6.3 Except for pipes, the number of components that are subject to this rule by component type.</p> <p>6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation.</p> <p>6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description).</p> <p>6.6.6 Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan.</p> <p>6.6.7 A detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team.</p> <p>6.6.8 A description of the training standards for personnel that inspect and repair components.</p> <p>6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary.</p> <p>6.7 By January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.</p> <p>6.8 The APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.</p>	<p>This new section has more stringent requirements regarding preparing and submitting an Operator Management Plan which were not required by the SIP version of the rule.</p> <p>Therefore, the non-SIP version of rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4401 (1/15/1998)	Non-SIP Version of Rule 4401 (12/14/2006)	Conclusion
<p>7.0 Compliance Schedule</p>	<p>7.0 Compliance Schedule</p> <p>7.1 The operator of any new steam-enhanced crude oil production well, or any non-steam-enhanced crude oil production well converted to a steam-enhanced crude oil production well, which commences steam-enhancement operations on or after April 11, 1991, shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent.</p> <p>7.2 Any crude oil production well that becomes subject to this rule through loss of exemption shall be in compliance within 24 months after the date of losing an exemption.</p>	<p>7.0 Compliance Schedule</p> <p>7.1 The operator of any new steam-enhanced crude oil production well, or any non-steam-enhanced crude oil production well converted to a steam-enhanced crude oil production well, which commences steam-enhancement operations on or after April 11, 1991, shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent.</p> <p>7.2 Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.3, 4.4, 4.5, 4.8 or 4.9 that become subject to this rule through loss of exemption status shall not be operated until such time that they are in full compliance with the requirements of this rule.</p> <p>7.3 Effective on and after January 1, 2009, an operator shall be in full compliance with the requirements of this rule, unless otherwise specified in the provisions of this rule</p>	<p>This section was amended to prohibit an operator from using any steam-enhanced crude oil production well and any associated VOC collection and control system and component(s) that become subject to the requirements of this rule through the loss of exemption status due to operator action until the operator demonstrates that the previously exempt unit(s) are in compliance with this rule. The new Section 7.3 requires an operator to be in full compliance with the requirements of this rule, unless otherwise specified in the certain provisions of this rule.</p> <p>These requirements are more stringent than the SIP version of the rule. Therefore, the non-SIP version of rule is more stringent than the SIP version.</p>

Overall Conclusion:

District Rule 4401 was amended (12/14/2006) to implement the emission control measures to satisfy the attainment goals of the District's ozone and PM plans. The proposed amendments seek to obtain as much reduction of VOC emissions from crude oil production sources as expeditiously as practicable, technologically feasible, and economically reasonable. These amendments can potentially achieve emissions reduction by eliminating certain exemption provisions in the rule to make more sources subject to the rule and by decreasing the current leak threshold as well as reducing the allowable leak repair period.

As analyzed above, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule.

Stringency Comparison of District Rule 4601 Non-SIP Version (12/17/09) to Current SIP Version (10/31/01)

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
2.0 Applicability	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the District.	No change in the applicability, therefore, non-SIP version of rule is as stringent as SIP version.
4.0 Exemptions	<p>The provisions of this rule shall not apply to:</p> <p>4.1 Any architectural coating that is sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.</p> <p>4.2 Any architectural coating that is sold in a containers with a volume of one liter (1.057 quarts) or less.</p> <p>4.3 Any aerosol coating product.</p>	<p>4.1 The provisions of this rule shall not apply to:</p> <p>4.1.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.</p> <p>4.1.2 Any aerosol coating product.</p> <p>4.2 With the exception of Section 6.2, the provisions of this rule shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quarts) or less.</p>	The only change is to require reporting requirements as discussed in Section 6.2 of the non-SIP approved version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
5.0 Requirements	Note: Section 5.0 requirements refer to Table of Standards, Table of Standards 1, and Table of Standards 2. These tables are included as Attachment X.		
	<p>5.1 VOC Content Limits: Except as provided in Sections 5.2, 5.3, 5.8 and 8.0, no person shall;</p> <p>5.1.1 manufacture, blend, or repackage for sale within the District;</p> <p>5.1.2 supply, sell, or offer for sale within the district;</p> <p>5.1.3 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, after the specified effective date in the Table of Standards.</p>	<p>5.1 VOC Content Limits: Except as provided in Sections 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.</p>	Sections 5.8 and 8.0 of the SIP version are not included in the non-SIP version. As discussed in corresponding sections the non-SIP version is more stringent. The Table of Standards and Table of Standards 1 have the same VOC limits. Table of Standard 2 is more stringent as discussed below. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	<p>5.2 Most Restrictive VOC Limit: If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in the Table of Standards, then the most restrictive VOC content limit shall apply. This provision does not apply to the following coating categories:</p> <p>5.2.1 Lacquer coatings (including lacquer sanding sealers)</p> <p>5.2.2 Metallic pigmented coatings</p> <p>5.2.3 Shellacs</p> <p>5.2.4 Fire-retardant coatings</p> <p>5.2.5 Pretreatment wash primers</p> <p>5.2.6 Industrial maintenance coatings</p> <p>5.2.7 Low-solids coatings</p>	<p>5.2 Most Restrictive VOC Limit: If a coating meets 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, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in the Table of Standards 1 or the Table of Standards 2.</p> <p>5.2.1 Effective until December 31, 2010, with the exception of the specialty coating categories specified in Section 5.2.3.1 through 5.2.3.15, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 1, the most restrictive (or lowest) VOC content limit shall apply.</p> <p>5.2.2 Effective on and after January 1, 2011, with the exception of the</p>	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>5.2.8 Wood preservatives 5.2.9 High temperature coatings 5.2.10 Temperature-indicator safety coatings 5.2.11 Antenna coatings 5.2.12 Antifouling coatings 5.2.13 Flow coatings 5.2.14 Bituminous roof primers 5.2.15 Specialty primers, sealers and undercoaters</p>	<p>specialty coating categories specified in Sections 5.2.3.2, 5.2.3.3, 5.2.3.5 through 5.2.3.9, and 5.2.3.14 through 5.2.3.18, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 2, the most restrictive (or lowest) VOC content limit shall apply.</p> <p>5.2.3 This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf.</p> <p>5.2.3.1 Lacquer coatings (including lacquer sanding sealers) 5.2.3.2 Metallic pigmented coatings 5.2.3.3 Shellacs 5.2.3.4 Fire-retardant coatings 5.2.3.5 Pretreatment wash primers 5.2.3.6 Industrial maintenance coatings 5.2.3.7 Low-solids coatings 5.2.3.8 Wood preservatives 5.2.3.9 High temperature coatings 5.2.3.10 Temperature-indicator safety coatings 5.2.3.11 Antenna coatings 5.2.3.12 Antifouling coatings 5.2.3.13 Flow coatings 5.2.3.14 Bituminous roof primers 5.2.3.15 Specialty primers, sealers and undercoaters 5.2.3.16 Aluminum roof coatings 5.2.3.17 Zinc-rich primers 5.2.3.18 Wood Coatings</p>	
	<p>5.3 Sell-Through of Coatings: 5.3.1 A coating manufactured prior to the January 1, 2003 or January 1, 2004 effective date specified for that coating in the Table of Standards may 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 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. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1. 5.3.2 A coating included in an approved Averaging Program that does not comply with the specified limit in the</p>	<p>5.3 Sell-Through of Coatings: 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, may 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. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Section 6.3.2 was removed it is no longer applicable in the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>Table of Standards may be sold, supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This Section 5.3.2 does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions in California" or a substitute symbol specified by the Executive Officer of the California Air Resources Board (ARB). This Section 5.3.2 shall remain in effect until January 1, 2008.</p>		
	<p>5.4 Painting Practices: 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.</p>	<p>5.4 Painting Practices: 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.</p>	<p>No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.</p>
	<p>5.5 Thinning: 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.</p>	<p>5.5 Thinning: 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.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>
	<p>5.6 Rust Preventative Coatings: Effective January 1, 2004, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards.</p>	<p>5.6 Rust Preventative Coatings: Effective through December 31, 2010, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards 1.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>
	<p>5.7 Coatings Not Listed in the Table of Standards: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of Standards, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Sections 3.21, 3.36 and 3.37 and the corresponding flat or nonflat VOC limit shall apply.</p>	<p>5.7 Coatings Not Listed in the Table of Standards 1 or the Table of Standards 2: For any coating that does 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.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>
	<p>5.8 Lacquers: Notwithstanding the provisions of Section 3.1, a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater</p>	<p>---</p>	<p>This section has been removed. The operation is required to meet the lacquer VOC limit regardless of</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>than 70 percent and temperature below 65°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.</p>		<p>temperature and humidity. Therefore, non-SIP version of rule is as stringent as SIP version</p>
	<p>5.9 Averaging Compliance Option: On or after January 1, 2003, in lieu of compliance with the specified limits in The Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in Section 8.0, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section 5.9 and Section 8.0 shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.</p>	---	<p>This section is removed from the non-SIP version, it is no longer applicable. Therefore, non-SIP version of rule is as stringent as SIP version.</p>
	---	<p>5.8 Prior to January 1, 2011, any coating that meets a definition in Section 3.0 for a coating category listed in the Table of Standards 2 and complies with the applicable VOC limit in the Table of Standards 2 and with Sections 5.2 and 6.1 (including those provision of Section 6.1 otherwise effective on January 1, 2011) shall be considered in compliance with this rule.</p>	<p>Table of Standards 2 is more stringent than the VOC limits of Table of Standards in the SIP-Approved version. Therefore, non-SIP version of rule is as stringent as SIP version.</p>
	<p>Table of Standards (See Attachment X for Table)</p>	<p>Table of Standards 1 (Effective through 12/31/10) (See Attachment X for Table)</p>	<p>The non-SIP rule requirements are the same as the Table of Standards in the SIP approved rule, except Table of Standards 1 expires at which time Table of Standards 2 is in effect. As discussed below these standards are more stringent. Therefore, non-SIP version of rule is as stringent as SIP version.</p>
		<p>Table of Standards 2 (Effective on and after 1/1/11) (See Attachment X for Table)</p>	<p>The requirements of Table of Standards 2 are more stringent than the Table of Standards in the SIP rule. Therefore, non-SIP version of rule is as stringent as SIP version.</p>
<p>6.0 Administrative Requirements</p>	<p>6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections</p>	<p>6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the</p>	<p>The non-SIP approved rule contain sections listed in the SIP rule plus</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>6.1.1 through 6.1.9 on the coating container (or label) in which the coating is sold or distributed.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display either the maximum or actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in Section</p> <p>6.3.1. The equations in Sections 3.25 or 3.26, as appropriate, shall be used to calculate VOC content.</p> <p>6.1.4 Industrial Maintenance Coatings: In addition to the information specified in Sections 6.1.1, 6.1.2 and 6.1.3, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.4.1 through 6.1.4.3.</p> <p>6.1.4.1 "For industrial use only"</p> <p>6.1.4.2 "For professional use only"</p> <p>6.1.4.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.5 Clear Brushing Lacquers: Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."</p> <p>6.1.6 Rust Preventative Coatings: Effective January 1, 2003, the labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only"</p> <p>6.1.7 Specialty Primers, Sealers and Undercoaters: Effective January 1, 2003, the labels of all specialty primers, sealers and undercoaters shall prominently</p>	<p>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.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display one of the following values, in grams of VOC per liter of coating:</p> <p>6.1.3.1 Maximum VOC Content, as determined from all potential product formulations; or</p> <p>6.1.3.2 VOC Content, as determined from actual formulation data; or</p> <p>6.1.3.3 VOC Content, as determined using the test methods in Section 6.3.2.</p> <p>If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.1.4 Faux Finishing Coatings: Effective January 1, 2011, the labels of all clear topcoat Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system".</p> <p>6.1.5 Industrial Maintenance Coatings: Each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of</p>	<p>additional requirements not found in the SIP version. Therefore, non-SIP version of rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>display one or more of the descriptions listed in Section</p> <p>6.1.7.1 through 6.1.7.5.</p> <p>6.1.7.1 For blocking stains.</p> <p>6.1.7.2 For fire-damaged substrates.</p> <p>6.1.7.3 For smoke-damaged substrates.</p> <p>6.1.7.4 For water-damaged substrates.</p> <p>6.1.7.5 For excessively chalky substrates.</p> <p>6.1.8 Quick Dry Enamels: Effective January 1, 2003, the labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time.</p> <p>6.1.9 Non-flat – High Gloss Coatings: Effective January 1, 2003, the labels of all non-flat – high gloss coatings shall prominently display the words "High Gloss".</p>	<p>the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.5.1 through 6.1.5.3.</p> <p>6.1.5.1 "For industrial use only"</p> <p>6.1.5.2 "For professional use only"</p> <p>6.1.5.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.6 Clear Brushing Lacquers: The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed." (Category deleted effective January 1, 2011.)</p> <p>6.1.7 Rust Preventative Coatings: The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only".</p> <p>6.1.8 Specially Primers, Sealers and Undercoaters: Effective until December 31, 2010, the labels of all specially primers, sealers and undercoaters shall prominently display one or more of the descriptions listed in Section 6.1.8.1 through 6.1.8.5. Effective on and after January 1, 2011, the labels of all specially primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in Sections 6.1.8.1 through 6.1.8.3. On and after January 1, 2011, Sections 6.1.8.4 and 6.1.8.5 will be no longer effective.</p> <p>6.1.8.1 For fire-damaged substrates.</p> <p>6.1.8.2 For smoke-damaged substrates.</p> <p>6.1.8.3 For water-damaged substrates.</p> <p>6.1.8.4 For excessively chalky substrates.</p> <p>6.1.8.5 For blocking stains.</p> <p>6.1.9 Quick Dry Enamels: The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time. (Category deleted effective January 1, 2011.)</p> <p>6.1.10 Reactive Penetrating Sealers: Effective January 1, 2011, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer."</p> <p>6.1.11 Stone Consolidants: Effective January 1, 2011, the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only."</p> <p>6.1.12 Nonflat– High Gloss Coatings: The labels of all Nonflat – high gloss coatings shall prominently display the words "High Gloss."</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>6.1.13 Wood Coatings: Effective January 1, 2011, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only."</p> <p>6.1.14 Zinc Rich Primers: Effective January 1, 2011, the labels of all Zinc Rich Primers shall prominently display one or more of the following descriptions listed in Section 6.1.14.1 through 6.1.14.3.</p> <p>6.1.14.1 "For industrial use only"</p> <p>6.1.14.2 "For professional use only"</p> <p>6.1.14.3 "Not for residential use" or "Not intended for residential use"</p>	
	<p>6.2 Reporting Requirements</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p>	<p>6.2 Reporting Requirements</p> <p>The reporting requirements specified in Sections 6.2.1 through 6.2.6 shall apply until December 31, 2010.</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an</p>	<p>Until December 31, 2010 both versions of the rule have the same reporting requirements. After that date the non-SIP approved rule includes very specific information to be kept and is required for all architectural coatings. Therefore, non-SIP version of rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>6.2.4.2 the product category listed in the Table of Standards to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p>	<p>annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p> <p>6.2.4.2 the product category listed in the Table of Standards 1 or the Table of Standards 2 to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.</p> <p>6.2.7 Effective on and after January 1, 2011, Sales Data: All sales data listed in Sections 6.2.7.1 to 6.2.7.14 shall be maintained on-site by the responsible official for a minimum of three years. A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17,</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>California Code of Regulations Sections 91000-91022. The responsible official shall within 180 days provide information, including, but not limited to the data listed in Sections 6.2.7.1 through 6.2.7.14:</p> <p>6.2.7.1 the name and mailing address of the manufacturer;</p> <p>6.2.7.2 the name, address and telephone number of a contact person;</p> <p>6.2.7.3 the name of the coating product as it appears on the label and the applicable coating category;</p> <p>6.2.7.4 whether the product is marketed for interior or exterior use or both;</p> <p>6.2.7.5 the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);</p> <p>6.2.7.6 the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;</p> <p>6.2.7.7 the names and CAS numbers of the VOC constituents in the product;</p> <p>6.2.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition;</p> <p>6.2.7.9 whether the product is marketed as solvent-borne, waterborne, or 100% solids;</p> <p>6.2.7.10 description of resin or binder in the product;</p> <p>6.2.7.11 whether the coating is a single-component or multi-component product;</p> <p>6.2.7.12 the density of the product in pounds per gallon;</p> <p>6.2.7.13 the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition; and</p> <p>6.2.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>6.3 Test Methods</p> <p>6.3.1 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.26 and 3.27, the reference method for VOC content is U.S. EPA Method 24, except as provided in Sections 6.3.2 and 6.3.15. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Section 6.3.14. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), incorporated by reference in Section 6.3.12. To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 6.3.2, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.2. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis.</p> <p>6.3.2 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.1, after review and approved in writing by the staffs of the District, the ARB and the U.S. EPA, may also be used.</p> <p>6.3.3 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 6.3.15. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.4 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials"(see Section 3, Fire-Retardant Coating).</p> <p>6.3.5 Fire Resistance Rating: The fire</p>	<p>6.3 Test Methods</p> <p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>6.3.1 Calculation of VOC Content: For the purpose of determining compliance with the VOC content limits in the Table of Standards 1 or the Table of Standards 2, the VOC content of a coating shall be determined as defined in Section 3.77, 3.78, or 3.79 as appropriate. The VOC content of a lint base shall be determined without colorant that is added after the lint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.3.2 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.77 and 3.79, the reference method for VOC content is EPA Method 24, except as provided in Sections 6.3.3 and 6.3.16. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996). The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1993), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable. To determine the VOC content of a coating, the manufacturer may use EPA Method 24, or an alternative method as provided in Section 6.3.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of EPA Method 24 test and any other means for determining VOC content, the EPA Method 24</p>	<p>The non-SIP version includes all the requirements of the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials"(see Section 3, Fire-Resistive Coating).</p> <p>6.3.6 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss"(see Section 3, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.7 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, SCAQMD Laboratory Methods of Analysis for Enforcement Samples (see Section 3, Metallic Pigmented Coating).</p> <p>6.3.8 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products"(see Section 3, Pre-Treatment Wash Primer).</p> <p>6.3.9 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quickdry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95.</p> <p>6.3.10 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater).</p> <p>6.3.11 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," BAAQMD Manual of Procedures, Volume III, adopted 11/8/96 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.12 Exempt Compounds—</p>	<p>test results will govern, except when an alternative method is approved as specified in Section 6.3.3. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct an EPA Method 24 analysis.</p> <p>6.3.3 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.2 f, after review and approved in writing by the staffs of the District, ARB and EPA, may also be used.</p> <p>6.3.4 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24 (40 CFR 59, subpart D, Appendix A). This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.5 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM E84-07, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Section 3.0, Fire-Retardant Coating).</p> <p>6.3.6 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM E119-07, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Section 3.0, Fire-Resistive Coating).</p> <p>6.3.7 Gloss Determination: The gloss of a coating shall be determined by ASTM D523-89 (1999), "Standard Test Method for Specular Gloss" (see Section 3.0, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.8 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, SCAQMD Laboratory Methods of Analysis for Enforcement Samples (see Section 3.0, Metallic Pigmented Coating, Aluminum Roof Coating and Faux Finish).</p> <p>6.3.9 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products" (see Section 3.0, Pre-Treatment Wash Primer).</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.13 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1996), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.14 VOC Content of Coatings: The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 <i>Code of Federal Regulations</i> (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings" (see Section 6.3.1).</p> <p>6.3.15 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 6.3.1).</p> <p>6.3.16 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998) (see Section 6.3.3).</p>	<p>6.3.10 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3.0, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM D1640-95. (Category deleted effective January 1, 2011.)</p> <p>6.3.11 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films" (see Section 3, Specialty Primer, Sealer and Undercoater). (Category deleted effective January 1, 2011.)</p> <p>6.3.12 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 11/6/96 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.13 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.14 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.15 VOC Content of Coatings: The VOC content of a coating shall be determined by EPA Method 24 as it exists in appendix A of 40 <i>Code of</i></p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p><i>Federal Regulations (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings" (see Section 6.3.2).</i></p> <p>6.3.16 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples.</i></p> <p>6.3.17 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998).</p> <p>6.3.18 Hydrostatic Pressure for Basement Specialty Coatings: The hydrostatic pressure resistance for basement specialty coatings shall be analyzed using ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry".</p> <p>6.3.19 Tub and Tile Refinish Coating Adhesion: The adhesion of tub and tile coating shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test".</p> <p>6.3.20 Tub and Tile Refinish Coating Hardness: The hardness of tub and tile refinish coating shall be determined by ASTM D3363-05, "Standard Test Method for Film Hardness by Pencil Test".</p> <p>6.3.21 Tub and Tile Refinish Coating Abrasion Resistance: Abrasion resistance of tub and tile refinish coating shall be analyzed by ASTM D4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser".</p> <p>6.3.22 Tub and Tile Refinish Coating Water Resistance: Water resistance of tub and tile refinish coatings shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02e1, "Standard Test Method</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>for Evaluating Degree of Blistering of Paints".</p> <p>6.3.23 Waterproofing Membrane: Waterproofing membrane shall be tested by ASTM C836-08, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course".</p> <p>6.3.24 Mold and Mildew Growth for Basement Specialty Coatings: Mold and mildew growth resistance for basement specialty coatings shall be determined by ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation".</p> <p>6.3.25 Reactive Penetrating Sealer Water Repellency: Reactive penetrating sealer water repellency shall be analyzed by ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140-08, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units".</p> <p>6.3.26 Reactive Penetrating Sealer Water Vapor Transmission: Reactive penetrating sealer water vapor transmission shall be analyzed ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials".</p> <p>6.3.27 Reactive Penetrating Sealer - Chloride Screening Applications: Reactive penetrating sealers shall be analyzed by National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures".</p> <p>6.3.28 Stone Consolidants: Stone consolidants shall be tested using ASTM E2187-01, "Standard Guide for Selection and Use of Stone Consolidants".</p>	
7.0 Compliance Schedule	Persons subject to this rule shall be in compliance with this rule by October 31, 2001.	Persons subject to this rule shall be in compliance with this rule by the dates specified within the rule.	No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.
8.0 Averaging Compliance Option	8.1 On or after January 1, 2003, in lieu of compliance with the specified limits in the Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; rust		No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in this Section, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.</p> <p>Per Section 8.1, averaging is no longer applicable. Therefore, Section 8.2 through 8.14 are not listed.</p>		

District Rule 4601 was amended (12/17/2009). As analyzed, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule.

ATTACHMENT F

Comments and Responses

US Environmental Protection Agency
Comments to SJVAPCD on Macpherson Oil Company Title V Renewal
Project S-1054655

December 20, 2011

EPA Comment 1

The District's evaluation of CAM (Part 64 applicability) begins on page 85 of the District's evaluation. Please review all permits for tanks connected to a vapor recovery system and all TEOR systems for CAM applicability using the methodology EPA has outlined below. EPA also requests that when a type of equipment is evaluated for CAM applicability, the CAM discussion must list all of the emission units covered by that evaluation.

For the listed permits with fixed roof tanks equipped with vapor recovery systems, the District determined that the systems are not subject to CAM requirements since the systems do not meet the CAM definition of a control device. EPA notes that in numerous cases where the equipment includes vapor recovery, the evaluation states that these equipment are not subject to CAM "...since vapor control system is a collection system rather than a control device". This is an insufficient analysis. The evaluation must include an explanation as to why a "control system" is not a "control device." §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.

This proposed permit has numerous tanks equipped with vapor recovery systems that EPA believes may be subject to CAM and for which a more detailed CAM applicability determination is required. In general, for tanks connected to a vapor recovery system, there are three parts to the system. First there is the storage tank which is the emitting source. The control device then consists of two parts, the capture and collection system, and finally the device that condenses or destroys the captured emissions. It is not clear from the current CAM evaluation whether any of the permitted vapor recovery systems are vented to control devices, but it is reasonable to expect that most systems are vented to some type of control device. The vapor recovery systems are not inherent process equipment because they are required to control emissions and do not affect the ability to operate a storage tank.

The TEOR systems operate in a very similar manner, but the uncontrolled emissions are coming from the off-gassing of the steam enhanced wells. The control device again consists of two parts, the capture and collection system and the device that destroys the captured emissions. For these permits, the emissions are vented to a flare that destroys the VOC emissions.

In both cases there is an emission unit (the tanks or steam enhanced wells) and a required capture/collection and control system. In both cases the emissions from the emission units is required to be controlled and emission control devices (which includes the capture and collection system) are installed. Thus to properly evaluate CAM applicability, the District must determine the uncontrolled emission rates from the emission units and the post control emission rates from the control devices. Any fugitive emissions from the capture and control system must be included in the post control emission rates.

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 an requirement to do so. Vapor control has historically been installed on crude oil production well vents as well prior to the requirement to install such controls. In fact, the District has issued emission reduction credits for the installation of well vent vapor control systems.
- Vapors collected by tank and well vapor control systems are commonly burned in multiple existing units, e.g. steam generators, in which useful energy is recovered. Steam generators, are used in oil production to enhance oil recovery from production wells. The steam generators, wells and tanks (with their associated vapor control systems) are part of the overall process to thermally enhance oil production.

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

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

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

EPA Comment 2

On page 68, the District's evaluation for CAM applicability of the steam generators is based on using 7 ppm or 0.0085 lb NO_x/MMBtu; however, Permit No. S-1703-161-6 is limited to 15 ppm or 0.018 lb NO_x/MMBtu. Therefore, please provide the evaluation for the 15 ppm emission limit.

District Response

Permit No. S-1703-161-6 should be limited to 7 ppm or 0.0085 lb NO_x/MMBtu since ATC S-1703-161-15 has been implemented. This emission limit has been revised on the draft and final PTO.